(4)

Navy Personnel Research and Development Center

San Diego, California 92152-6800

10 km

TR-93-1

October 1992



AD-A257 078

Rating Training Continuum: Baseline Data



April Moranville Donald H. Hewitt



Approved for public release; distribution is unlimited.

Rating Training Continuum: Baseline Data

April Moranville Donald H. Hewitt

Reviewed and approved by J. C. McLachlan

Released by
Thomas F. Finley
Captain, U.S. Navy
Commanding Officer
and
Richard C. Sorenson
Technical Director (Acting)

Approved for public release; distribution is unlimited.

Navy Personnel Research and Development Center San Diego, California 92152-6800

REPORT DOCUMEN	ITATION PAGE	Form Approved OMB No. 0704-0188
Public reporting burden for this collection of information is est sources, gathering and maintaining the data needed, and compaspect of this collection: of information, including suggestions Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington Washington, DC 20503.	leting and reviewing the collection of information. for reducing this burden, to Washington Headqu	Send comments regarding this burden estimale or any other larters Services, Directorate for Information Operations and
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE October 1992	3. REPORT TYPE AND DATE COVERED Final; 1 Oct 89 to 30 Sep 91
4. TITLE AND SUBTITLE Rating Training Continuum: Baseline Data		5. FUNDING NUMBERS Program Element 0603720N Work Unit R1772-ET010
6. AUTHOR(S) April Moranville, Donald H. Hewitt		
7. PERFORMING ORGANIZATION NAME(S) AND A Navy Personnel Research and Development (San Diego, California 92152-6800)		8. PERFORMING ORGANIZATION REPORT NUMBER NPRDC-TR-93-1
9. SPONSORING/MONITORING AGENCY NAME(S) Deputy Chief of Naval Operations (OP-1111) Navy Department Washington, DC 20350-2000		10. SPONSORING/MONITORING AGENCY REPORT NUMBER
11. SUPPLEMENTARY NOTES Functional Area: Education and Training Product Line: Operational Training Effort: Career Systems Design		
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlim	ited.	12b. DISTRIBUTION CODE
13. ABSTRACT (Maximum 200 words) The Deputy Chief of Naval Operations (Mathematical Development Center (NPRDC) to construct a transfer Electronic Warfare Technician (EW) ratings as at for the OS and EW ratings in FY89 and FY90. The and published in 1991. To determine the effective evaluation plan identified four attributes that wou attributes were: Job performance, force structure baseline data specified in the evaluation plan, Nodatabases were not available, surveys were development.	ining continuum design methodology ne design vehicles. Rating Training Co e results of the workshops were incorp eness of the OS and EW CTPs an eva d reflect changes in the rating before a e, training effectiveness, and career IPRDC used existing organizational of	using the Operations Specialist (OS) and the ontinuum Development Workshops were held to be orated into Continuum Training Plans (CTPs) aluation plan was also published in 1991. The nd after implementation of the CTPs. The four attitude. To provide the pre-implementation lata bases whenever possible. When existing
14. SUBJECT TERMS Continuum training plan, electronic warfare to operations specialist, continua, workshops, training the statement of the st		evelopment, 15. NUMBER OF PAGES 209 16. PRICE CODE

UNCLASSIFIED

OF REPORT

17. SECURITY CLASSIFICATION

18. SECURITY CLASSIFICATION

OF THIS PAGE

UNCLASSIFIED

20. LIMITATION OF ABSTRACT

UNLIMITED

19. SECURITY CLASSIFICATION

OF ABSTRACT

UNCLASSIFIED

Foreword

This work was sponsored by the Deputy Chief of Naval Operations (OP-111J) as part of the Career Systems Design (CSYD) project. It was funded under the Education and Training Function, Program Element 0603720N, Work Unit R1772-ET010.

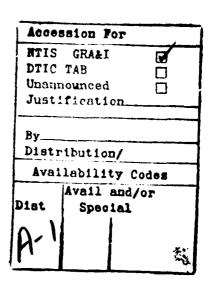
The CSYD project, which was conceived using a systems approach to career implementation, preparation, and development, was tasked to design a Rating Continuum Design Methodology. The resultant methodology was applied to the Operations Specialist (OS) and the Electronic Warfare Technician (EW) ratings. Rating training continuum workshops were held for the OS and EW ratings in FY89 and FY90. The results of the workshops were incorporated into Continuum Training Plans (CTPs) and published in 1991.

To determine the effectiveness of the OS and EW CTPs, an evaluation plan was developed (Megrditchian & Moranville, 1991). The evaluation plan identified four measurable attributes relating continuum policy and program effectiveness. Each attribute consists of a number of variables. To evaluate the effectiveness of the OS and EW CTP, the four attributes and their associated variables must be measured before and after implementation of the CTPs. This report provides the baseline data required to proceed with the evaluation.

THOMAS F. FINLEY Captain, U.S. Navy Commanding Officer

RICHARD C. SORENSON Technical Director (Acting)

DTIC QUALITY INSPECTED 1



Summary

Problem

The Deputy Chief of Naval Operations (Manpower, Personnel and Training (OP-01) tasked Navy Personnel Research and Development Center (NPRDC) to construct a training continuum design methodology using the Operations Specialist (OS) and Electronic Warfare Technician (EW) ratings as the design vehicles. Rating Training Continuum Development Workshops were held for the OS and EW ratings in FY89 and FY90. The results of the workshops were incorporated into Continuum Training Plans (CTPs) and published in 1991.

To determine the effectiveness of the OS and EW CTPs, an evaluation plan was developed. This evaluation plan identified four measurable attributes relating continuum policy and program effectiveness. Evaluating the effectiveness of the OS and EW CTPs involves measuring the attributes before and after implementation of the CTP. The Continuum Development Office (OP-111J), which will be responsible for conducting the evaluation, had no baseline data that reflect the ratings before implementation of the OS and EW CTPs.

Objective

The objective of this effort was to provide the pre-implementation baseline data required to evaluate the effectiveness of the OS and EW CTPs.

Approach

To collect the OS and EW baseline data, existing organizational data bases were searched for relevant information on four attributes: Job performance, force structure, training effectiveness, and career attitudes. Surveys were developed to collect data on attributes when existing organizational data were not available. The surveys were distributed to supervisory and nonsupervisory OS and EW personnel from fleet and shore commands on both the East and West coasts. Of 5,751 surveys sent out, 2,918 surveys were returned for analysis.

Results

OS Baseline Data

- 1. Job Performance: PQS progress increased as a function of paygrade; the amount of time on task decreased as paygrade increased; across all variables, supervisory ratings were more favorable as subordinate paygrade increased.
- 2. Force Structure: Sixty-four percent of enlistees are 4-year obligors. The paygrades with the highest percentage of individuals eligible for advancement are E-4 (23%) and E-2 (27%); 61 percent of the OS rating consists of E-4s through E-6s; 60 percent of the rating will have rotated by 1991; 88 percent of those eligible for reenlistment did so within 24 hours with or without a bonus; 81 percent of the total OS billets are sea-based and 19 percent are shore-based.
- 3. Training Effectiveness: Academic attrition across all courses is less than 1 percent; nonacademic attrition across all courses is 2 percent; 40 percent of the available courses are taught

at the E-4 level; "A" school had the highest percentage of academic setbacks (20%) and nonacademic setbacks (8%); all current courses use either a group-paced or lock step method of instruction.

4. Job Attitudes: Enlisted personnel generally rated all aspects of their job more positively as their paygrade increased.

EW Baseline Data

- 1. Job Performance: PQS progress increased as a function of paygrade; the amount of time required on task decreased as paygrade increased; across all variables, supervisory ratings were more favorable as subordinate paygrade increased.
- 2. Force Structure: Seventy-three percent of enlistees are 4-year obligors; 88 percent of the individuals eligible for advancement are in paygrades E-4 through E-6; 75 percent of the EW rating consists of E-4s through E-6s; 59 percent of the rating will have rotated by 1991; 93 percent of those eligible for reenlistment did so within 24 hours with or without a bonus; 73 percent of the total EW billets are sea-based and 27 percent are shore-based.
- 3. Training Effectiveness: Across all courses, academic attrition is 1 percent; nonacademic attrition is 2 percent; 71 percent of the available courses are taught at the E-4 level; EW Electronic Technology had the highest percentage of academic setbacks (31%) and nonacademic setbacks (17%); all current courses use either a group-paced or lock-step method of instruction.
- 4. Job Attitudes: Enlisted personnel were generally satisfied with the amount of sea duty, their level of responsibility, their current job and the work they perform; there was some variability between paygrades on the other indices.

Conclusions and Recommendations

The baseline data reported here should be compared with the same data taken after the CTPs have been implemented into the OS and EW training pipelines.

Contents

	Page
Introduction	1
Background and Problem	1
Objective	1
Approach	2
Results	2
Operations Specialist (OS) Baseline Data	2
OS Job Performance	2
OS Force Structure	9
OS Training Effectiveness	13
OS Job Attitudes	26
Electronic Warfare Technician (EW) Baseline Data	31
EW Job Performance	31
EW Force Structure	38
EW Training Effectiveness	43
EW Job Attitudes	52
Conclusions and Recommendations	58
References	59
Appendix AEvaluation Attributes and Variables	A-0
Appendix BOrganizational Databases	B-0
Appendix COperations Specialist (OS) Occupational	
Standards (OCCSTDS)	C -0
Appendix DOperations Specialist (OS) Surveys	D-0
Appendix EOperations Specialist (OS) Skills Profiles	E-0
Appendix FOperations Specialist (OS) Training Attitude Survey Results	F-0
Appendix GElectronic Warfare Technician (EW) Occupational Standards (OCCSTDS)	G -0

App	pendix HElectronic Warfare Technician (EW) Surveys	H- 0
	pendix IElectronic Warfare Technician (EW) kills Profiles	I-C
	pendix JElectronic Warfare Technician (EW) Training ttitude Survey Results	W) Training W) Training J-0 A ation for 4
Dist	endix IElectronic Warfare Technician (EW) endix JElectronic Warfare Technician (EW) Training titude Survey Results List of Tables OS Job Performance Survey - Supervisor: PQS Process	
	List of Tables	
1.	OS Job Performance Survey - Supervisor: PQS Process	3
2.	OS Job Performance Survey - Supervisor: Time on Task	4
3.		4
4.	OS Job Performance Survey - Supervisor: Supervision	5
5.	OS Job Performance Survey - Supervisor: Work Quality	6
6.	OS Job Performance Survey - Supervisor: Skill and Knowledge Level	6
7.	OS Job Performance Survey - Supervisor: Maintenance Tasks	7
8.	OS Job Performance Survey - Supervisor: Operator Tasks	8
9.	OS Job Performance Survey - Supervisor: Ability to Respond	8
10.	OS Job Performance Survey - Supervisor: Background Information	9
11.	OS FY89: Term of Enlistment	10
12.	OS FY89: Type of Enlistment	10
13.	OS FY89: Billets	11
14.	OS FY89: Advancement	11
15.	OS FY89: Overall Personnel Distribution	12
16.	OS FY89: Personnel Level Distribution	13
17.	OS Turbulence by Calendar Year	13
18.	OS FY89: Retention	14
19.	OS FY89: Course Length	15

20.	OS FY89: Course Prerequisites
21.	OS FY89: Training Attrition
22.	OS FY89: Average Paygrade
23.	OS FY89: Training Setbacks
24.	OS FY89: NECs Awarded
25.	OS FY89: Days Awaiting Instruction
26.	OS FY89: Training Interruptions
27.	OS FY89: Average On Board (AOB)
28.	OS Training Attitude Survey: Respondent Distribution by Paygrade
29.	Navy Personnel Survey OS: Job Satisfaction
30.	Navy Personnel Survey: OS Organizational Commitment
31.	OS Job Performance Survey - Supervisor: Job Attitude Items
32.	EW Job Performance Survey - Supervisor: PQS Progress
33.	EW Job Performance Survey - Supervisor: Time on Task
34.	EW Job Performance Survey - Supervisor: Recommendation for Advancement
35 .	EW Job Performance Survey - Supervisor: Supervision
36.	EW Job Performance Survey - Supervisor: Work Quality
37.	EW Job Performance Survey - Supervisor: Skill and Knowledge Level
38.	EW Job Performance Survey - Supervisor: Maintenance Tasks
39.	EW Job Performance Survey - Supervisor: Operator Tasks
40.	EW Job Performance Survey - Supervisor: Ability to Respond
41.	EW Job Performance Survey - Supervisor: Background Information
42.	EW FY89: Term of Enlistment
43.	EW FY89: Type of Enlistment
44.	EW FY89: Billets
45.	EW FY89: Advancement
46	EW FY89: Overall Personnel Distribution

47.	EW FY89: Personnel Level Distribution	42
48.	EW Turbulence by Calendar Year	42
49.	EW FY89: Retention	43
5 0.	EW FY89: Course Length	44
51.	EW FY89: Course Prerequisites	45
52.	EW FY89: Training Attrition	46
53.	EW FY89: Average Paygrade	47
54.	EW FY89: Training Setbacks	48
55.	EW FY89: NECs Awarded	49
56 .	EW FY89: Days Awaiting Instruction	50
57.	EW FY89: Training Interruptions	51
58.	EW FY89: Average On Board (AOB)	52
59.	EW Training Attitude Survey: Respondent Distribution by Paygrade	53
60.	Navy Personnel Survey: EW Job Satisfaction	54
61.	Navy Personnel Survey: EW Organizational Commitment	56
62.	EW Job Performance Survey - Supervisor: Job Attitude Items	57

Introduction

Background and Problem

In 1983, a Navy Inspector General (NAVINSGEN) identified several training areas that needed improvement. Specifically, improvement was needed in the communications between the fleet and school commands, in the training community's response time to fleet comments, and in the agreement between the skills and knowledge that the fleet requires and the school curriculum. The training continuum concept evolved when senior Navy decision makers concluded that no cohesive and comprehensive plan for training requirements existed across the career of enlisted personnel. The Navy Training Strategy (Office of Chief of Naval Operations, 1989) directed the Deputy Chief of Naval Operations (Manpower, Personnel and Training (OP-01)) to coordinate the application of a continuum approach to rate and mission area training. The training continuum concept establishes career training requirements and provides an appropriate and timely mix of formal school, on-board training, and sea and shore assignments.

The Navy Personnel Research and Development Center (NPRDC) was tasked to construct a training continuum design methodology using the Operations Specialist (OS) and Electronic Warfare Technician (EW) ratings as the design vehicles. The continuum training concept requires the participation of current fleet experienced rating qualified subject matter experts (SMEs) to develop the continuum training plan (CTP). A workshop was determined to be the most effective means of bringing the SMEs together and obtaining the necessary information.

To date, there have been two rating training continuum development workshops: The first for the OS rating and the second for the EW rating. During each workshop, the SMEs developed training requirements in the form of personnel performance profiles (PPPs), training level assignments (TLAs), and a completed training pipeline (Moranville, 1992). All the information was then incorporated into a separate CTP for each rating.

To determine the effectiveness of the OS and EW CTPs an evaluation plan was developed (Megrditchian & Moranville, 1991). This evaluation plan identified four measurable attributes relating continuum policy and program effectiveness. Evaluating the effectiveness of the OS and EW CTPs involves measuring the attributes before and after implementation of the CTP.

The Career Systems Design (CSYD) project was completed at the end of FY91. The Continuum Development Office (OP-111J), which will be responsible for developing future rating training continua and for evaluating the effectiveness of the OS and EW CTPs, had no data on these attributes and their associated variables before implementation of the OS and EW CTPs. To assist the Continuum Development Office (OP-111J) in evaluating the effectiveness of the OS and EW CTPs, the baseline data needed had to be identified and collected immediately.

Objective

The objective of this effort was to provide the pre-implementation baseline data required to evaluate the effectiveness of the OS and EW CTPs.

Approach

The evaluation plan (Megrditchian & Moranville, 1991) identified four attributes that would reflect the changes in the ratings before and after implementation of the OS and EW CTPs. The four attributes are: Job performance, force structure, training effectiveness, and career attitudes. Each attribute consists of a number of variables, each of which measures training continuum policy as well as diverse evaluation viewpoints. See Appendix A for complete list of the attributes and their associated variables.

Four existing organizational data bases were searched for relevant information on the attributes/variables specified in the evaluation plan. The data bases utilized were TRAINTRACK (Nakada, Milczewsky, & Wax, 1989), the Catalog of Navy Training Courses (CANTRAC), the Enlisted Master Record (EMR), and the Navy Personnel Survey Database. See Appendix B for a description of each of the four databases.

Surveys were developed to obtain data on particular attributes/variables when no existing organizational data were available. Four surveys were developed to extract information on job performance and attitudes. The OS Job Performance Survey - Supervisor and the EW Job Performance Survey - Supervisor were designed so that supervisors could evaluate their subordinates by paygrade. The OS Training Attitude Survey and the EW Training Attitudes Survey were designed to obtain information on OS and EW job attitudes.

A total of 5,751 surveys were mailed. Of 2,918 returned for analysis, 884 were unusable because they were returned as undeliverable, had been completed incorrectly, or, in the case of the supervisor surveys, had been sent to personnel who were not currently supervising.

Results

Data from the four organizational data bases and the results from the four surveys developed for this effort were combined to present information on all the attributes/variables specified in the evaluation plan. The baseline data are organized into two sections: the first section presents the OS baseline data results, and the second section presented the EW baseline data results.

Operations Specialist (OS) Baseline Data

Data collection on specific OS variables began in October 1990. Unless otherwise indicated, data were collected for FY89.

OS Job Performance

The term job performance refers to various aspects of work that an individual performs. Data were collected for the following seven areas of job performance: tasks assigned in rating, Personnel Qualifications Standards (PQS) progress, time on task, recommendation for advancement, supervision, skill level, and supervisor confidence. Data for tasks assigned in rating came from the OS Occupational Standards (OCCSTDs) (Appendix C). Data for the other variables and background information came from the OS Job Performance Survey - Supervisor (Appendix D).

A total of 1,561 OS Supervisor Surveys were sent to a random sample of E-7s, E-6s, and E-5s. A total of 901 surveys were returned. Of those returned, 146 were returned as undeliverable, 245 recipients did not supervise anyone, and 9 were unusable.

Tasks Assigned in Rating

Tasks assigned in rating refers to a listing of the types of rating specific tasks performed by paygrade. The OS OCCSTDs were used to identify the tasks performed in the EW rating. These tasks are presented in Appendix C.

PQS Progress

PQS progress refers to the extent to which an individual is exhibiting satisfactory completion of PQS requirements. PQS progress data were collected from the OS Job Performance Survey - Supervisor (Appendix D). Supervisors were asked to rate their subordinates' progress with their PQS requirements. Table 1 shows the results.

Table 1
OS Job Performance Survey - Supervisor: PQS Progress

	Responses ^a (%)				
Paygrade	Unsatisfactory	Satisfactory	Exceptional		
E-1	19	63	18		
E-2	19	66	15		
E-3	14	66	20		
E-4	12	64	24		
E-5	6	54	40		
E-6	5	52	43		

^aPercentages may not always total 100 due to rounding.

Table 1 shows a general increase PQS progress as a function of paygrade. As the paygrade increased, supervisors' ratings of adequate PQS progress also increased.

Time on Task

Time on task refers to the amount of time spent on various categories of rating specific and nonrating specific tasks. Time-on-task data were collected from the OS Job Performance Survey - Supervisor. Supervisors were asked to rate the amount of time subordinates spend on task. Table 2 presents the results.

Table 2
OS Job Performance Survey - Supervisor: Time on Task

Paygrade]	Responses ^a (%)	
	Unsat.	Below Ave.	Average	Above Ave.	Exceptional
E-1	8	29	56	6	
E-2	6	30	57	7	
E-3	3	25	58	13	1
E-4	2	15	57	24	2
E-5	1	10	42	40	7
E-6	2	6	35	44	13

^aPercentages may not always total 100 due to rounding.

Table 2 shows that supervisors' perceptions of the amount of time subordinates spent performing tasks decreased as paygrade increased.

Recommendation for Advancement

Recommendation for advancement refers to a supervisor's stated commitment to recommend a subordinate for advancement based on a subordinate's overall record of performance. Recommendation for advancement data were collected from the OS Job Performance Survey - Supervisor. Supervisors were asked whether they would recommend their subordinates for advancement. The results are presented in Table 3.

Table 3
OS Job Performance Survey - Supervisor: Recommendation for Advancement

	Responses ^a (%)				
Paygrade	Not Recommended	Progressing	Recommended		
E-1	7	44	49		
E-2	7	45	48		
E-3	7	37	56		
E-4	6	35	59		
E-5	5	23	72		
E-6	5	19	75		

^aPercentages may not always total 100 due to rounding.

Table 3, shows that the higher the subordinates' paygrade is the more likely supervisors would be to recommend them for advancement.

Supervision

Supervision refers to the amount of supervision required by an individual in performing assigned tasks. Supervision data were collected from the OS Job Performance Survey - Supervisor. Supervisors were asked to rate their subordinates on how much supervision they require. The results are provided in Table 4.

Table 4
OS Job Performance Survey - Supervision

Paygrade			Responses ^a (%)		
	Constant	Excessive	Average	Minimal	Infrequent
E-1	26	22	48	3	
E-2	22	25	48	6	
E-3	11	23	55	10	1
E-4	4	15	70	27	3
E-5	1	10	23	44	22
E-6	1	6	15	29	49

^aPercentages may not always total 100 due to rounding.

Table 4 shows one of the clearest examples of supervisors' favorable ratings increasing as a function of paygrade. Subordinates required less supervision as paygrade increased.

Skill Level

Skill level refers to the performance level attained by paygrade. Skill level data were collected from the OS Job Performance Survey - Supervisor. Skill level consists of two variables: work quality on assigned tasks, and skill and knowledge levels exhibited. Supervisors were asked to rate their subordinates (E-1 through E-6) on these two variables.

Work Quality. Table 5 presents the results of the supervisors' ratings of the quality of their subordinates' work quality on their assigned tasks.

Table 5 shows that supervisors' ratings of subordinates' work quality were more favorable as paygrade increased.

Table 5
OS Job Performance Survey - Supervisor: Work Quality

Paygrade		I	Responses ^a (%)))	
	Unsat.	Below Ave.	Average	Above Ave.	Exceptional
E-1	11	23	56	10	
E-2	6	23	58	13	
E-3	2	16	56	24	2
E-4	2	10	51	33	3
E-5	1	7	37	44	11
E-6		9	27	44	20

^aPercentages may not always total 100 due to rounding.

Skill and Knowledge Level. Skill and knowledge level refers to an individual's ability to demonstrate necessary skill and knowledge. Supervisors were asked to rate their subordinates' skill and knowledge level. Table 6 provides the results.

Table 6
OS Job Performance Survey - Supervisor: Skill and Knowledge Level

Paygrade		Responses ^a (%)					
	Unsat.	Below Ave.	Average	Above Ave.	Exceptional		
E-1	11	27	54	7			
E-2	7	29	56	8			
E-3	4	21	57	18	1		
E-4	2	14	56	27	2		
E-5	1	8	32	5 0	10		
E-6	1	8	30	40	22		

^aPercentages may not always total 100 due to rounding.

Table 6 shows that supervisors' ratings of their subordinates' skill and knowledge levels increased with paygrade.

Supervisor Confidence

Supervisor confidence refers to the extent to which an individual's work performance meets a supervisor's expectations on rating specific and nonrating specific tasks. Supervisor confidence

data were collected from the OS Job Performance Survey - Supervisor. Supervisor confidence consists of three variables: performance on maintenance tasks, performance on operator tasks, and ability to respond to unusual work demands. Supervisors were asked to rate their subordinates (E-1 through E-6) on each of these variables.

Maintenance Tasks. Maintenance tasks refers to an individual's ability to perform maintenance tasks. Supervisors were asked to rate their subordinates on their performance on maintenance tasks. Table 7 presents the supervisors' responses.

Table 7
OS Job Performance Survey - Supervisor: Maintenance Tasks

	Responses ^a (%)					
Paygrade	Unsat.	Below Ave.	Average	Above Ave.	Exceptional	N/A ^b
E-1	7	33	42	6	1	11
E-2	5	30	46	6	2	11
E-3	3	20	50	17	3	7
E-4	2	9	48	30	4	8
E-5		6	31	33	13	17
E-6		3	20	22	16	39

^aPercentages may not always total 100 due to rounding.

Table 7 shows a continuation of the trend that supervisor ratings become more positive as paygrade increases. Roughly one tenth of the E-1s through E-4s do not perform maintenance tasks; this trend increases to almost one-fifth of the E-5s and peaks at 39 percent of the E-6s.

Operator Tasks. Operator tasks refers to an individual's ability to perform operator tasks. Supervisors were asked to rate their subordinates on their performance on operator tasks. Supervisors' responses are presented in Table 8.

Table 8 shows that supervisors' ratings of their subordinates' ability to perform operator tasks increased with paygrade.

Ability to Respond to Unusual Work Demands. Ability to respond to unusual work demands refers to personnel readiness. Supervisors were asked to rate their subordinates on their ability to respond to unusual work demands. The results are provided in Table 9.

 $^{{}^{}b}N/A = not applicable.$

Table 8
OS Job Performance Survey - Supervisor: Operator Tasks

Paygrade	Responses ^a (%)				
	Unsat.	Below Ave.	Average	Above Ave.	Exceptional
E-1	9	39	44	7	1
E-2	5	36.	51	7	
E-3	2	21	59	16	2
E-4	1	9	52	34	4
E-5		6	28	48	18
E-6		4	22	42	31

^aPercentages may not always total 100 due to rounding.

Table 9
OS Job Performance Survey - Supervisor: Ability to Respond

Paygrade	Responses ^a (%)				
	Unsat.	Below Ave.	Average	Above Ave.	Exceptional
E-1	15	29	46	9	1
E-2	11	30	48	10	1
E-3	6	27	49	16	2
E-4	2	20	45	28	5
E-5	1	11	31	42	15
E-6	1	7	25	38	29

^aPercentages may not always total 100 due to rounding.

Table 9 shows a general increase in ratings of the subordinates' ability to respond to unusual work demands as a function of an increase in paygrade.

OS Job Performance Survey - Supervisor: Background Information

Table 10 presents the number of individuals evaluated in each paygrade, average number of months the supervisors had supervised these subordinates, whether the supervisors had provided job performance feedback, and whether the training the subordinates had received had provided them with the background necessary to perform their job.

Table 10
OS Job Performance Survey - Supervisor: Background Information

Paygrade	Total No. of Individuals Supervised	Average No. of Months Supervised	Feedback Provided on Perf. (%)	Training Received Provided Background to Perorm Job (%)
E-1	457	10.3	Yes 95 No 5	Yes 72 No 28
E-2	812	11.1	Yes 97 No 3	Yes 72 No 28
E-3	1,544	14.7	Yes 99 No. 1	Yes 74 No.26
E-4	2,228	17.8	Yes 99 No. 1	Yes 82 No.18
E-5	2,441	18	Yes 99 No.1	Yes 84 No.16
E-6	1,235	16.7	Yes 97 No. 3	Yes 85 No. 15

Table 10 shows that almost all supervisors provide their subordinates with feedback regarding their job performance. As paygrade increases, there is a general increase in the number of individuals supervised and an increase in the average number of months they had been supervised. This trend plateaued at the E-4 to E-5 level and decreased at the E-6 level. There is also a general increase in supervisors' perceptions of adequate training as a function of paygrade, where the higher the paygrade was, the more confidence supervisors had that the training their subordinates had received provided them with the background to perform their job.

OS Force Structure

The term force structure refers to the composition of personnel in the Navy. This composition is viewed in terms of the number of personnel entering the Navy, how they are distributed, and whether they stay or leave. The personnel totals are not always equal. The reason for this difference is that some totals contain information not included in others. For example, "type of enlistment" data contain extraneous information about enlisted reenlistment and officers that was excluded in the reported total. Also, when personnel leave the Navy, they are dropped from the Enlisted Master Record (EMR). This is why the EMR cannot provide accurate attrition data. For these reasons, the attrition variable was not used. Baseline data were collected on the following six force structure variables: personnel acquisition, assignment, advancement, distribution of personnel, turbulence, and retention.

Personnel Acquisition

Acquisition refers to the number of recruits acquired for the purpose of enlistment or induction. Table 11 provides the number of OS personnel, by term of enlistment, who entered or reentered the Navy in FY89.

Table 11
OS FY89: Term of Enlistment

Years of Obligation	Number of Personnel	
2	187	
3	318	
4	8,080	
5	1,626	
6	2,390	
Total	12,601	

Table 11 shows that the majority of OS personnel enlisted for 4 years followed by 6 years.

Table 12 provides the number of OS personnel, by type of enlistment, who entered the Navy for the first time in FY89.

Table 12
OS FY89: Type of Enlistment

Type of Enlistment	Number of Personnel
First enlistment, bonus	436
First enlistment, no bonus	6,388
Total	6,824

Table 12 shows that the majority of personnel enlisted without a bonus.

Assignment

Assignment refers to the number of sea-based and shore-based billets. Table 13 provides the number of current sea-based and shore-based billets by paygrade.

Table 13 shows that 81 percent of the total billets were sea-based and 19 percent were shore-based.

Table 13
OS FY89: Billets

	Cu	ets		
Paygrade	Sea-based	Shore-based	Total	
E-9	49	48	97	
E-8	179	152	331	
E-7	413	298	711	
E-6	1,191	1,008	2,199	
E-5	2,793	588	3,381	
E-4	2,617	159	2,776	
E-3/E-2/E-1	3,005	164	3,169	
Total	10,247	2,417	12,644	

Advancement

Advancement refers to the number of personnel eligible for advancement to a higher paygrade. Table 14 presents the number of individuals, by paygrade, who are eligible for advancement due to their time in rate.

Table 14
OS FY89: Advancement

Paygrade	Number of Personnel
E-9	12
E-8	37
E-7	51
E-6	311
E-5	987
E-4	1,620
E-3	1,036
E-2	1,387
E-1	496
Total	5,937

Table 14 shows that E-4s and E-2s had the most individuals who were eligible for advancement followed by E-3s.

Distribution of Personnel

Distribution of personnel refers to the number of personnel in each paygrade. Table 15 lists OS personnel by paygrade. Ages for OS technicians ranged from 20 to 57 with a mean age of 25.74 years old. The distribution total (Table 15) is higher than the billet total (Table 13) because the distribution total includes nonbillet situations such as attending school, being in transition, and being in the brig.

Table 15
OS FY89: Overall Personnel Distribution

Paygrade	Number of Personnel
E-9	91
E-8	334
E-7	693
E-6	2,485
E-5	3,228
E-4	2,532
E-3	1,768
E-2	1,739
E-1	710
Total	13,580

Table 15 shows that the majority of OSs are E-4s through E-6s followed by the E-1s through E-3s.

Table 16 presents the distribution of OS personnel by personnel level: apprentice, journeyman, and master.

As can be seen in Table 16, the majority of personnel were apprentices (E-1 through E-5) followed by journeymen (E-6 and E-7).

Table 16
OS FY89: Personnel Level Distribution

Personnel Level	Number of Personnel		
Master (E-8 through E-9)	425		
Journeyman (E-6 and E-7)	3,178		
Apprentice (E-1 through E-5)	9,977		
Total	13,580		

Turbulence

Turbulence refers to events that interfere with normal, planned, and scheduled operations, processes, or activities. Table 17 presents the number of individuals who will rotate in a given year, which reflects the turbulence in the fleet.

Table 17
OS Turbulence by Calendar Year

Planned Rotation Date	Number of Personnel
1989	970
1990	3,854
1991	3,760
1992	3,139
1993	789
1994	176

The majority of personnel will rotate in 1990 followed by 1991 (Table 17).

Retention

Retention refers to the number of individuals who reenlist upon completion of their active obligated service. Table 18 presents the number of personnel who reenlisted.

As can be seen in Table 18, the majority of personnel reenlisted within 24 hours with a bonus followed by those who reenlisted within 24 hours without a bonus.

OS Training Effectiveness

Training effectiveness refers to questions of change in school curriculum and general student academic training performance. Training effectiveness consists of 12 variables that measure the extent of changes within OS training after implementation of the CTP. The OS career pipeline

Table 18
OS FY89: Retention

Type of Reenlistment	Number of Personnel	
Within 24 hours, bonus	3,829	
Within 24 hours, no bonus	1,124	
Within 3 months, bonus	34	
Within 3 months, no bonus	71	
Over 3 months, no bonus	545	
Total	5,603	

contains 21 courses that may be impacted by the implementation. For tracking purposes, data were collected for those individuals who are currently OSs and had taken the course. Baseline data for the 21 courses were collected on the following variables: curriculum revision, course length, course prerequisites, training attrition, course graduates, method of instruction, average paygrade, training setbacks, NECs awarded, training backlog, training interruptions, and average number on board. Course graduate and attrition data were also collected.

Curriculum Revision

Curriculum revision refers to the extent of changes in course content. Appendix E presents the skill profiles for the 21 courses. Some courses have no skill profiles because they were never developed, according to curriculum developers who were contacted.

Course Length

Course length refers to changes in course length. The current course lengths for both peacetime and mobilization appear in Table 19.

Course Prerequisites

Course prerequisites refers to the minimum level of prior training, experience, and/or paygrade required to attend a specific course. The current course prerequisites for both peacetime and mobilization appear in Table 20.

Table 19
OS FY89: Course Length

		n Days
Title (Abbreviation)	P ^a	M ^b
Operations Specialist Class A1 (OS "A")	96-P	80-M
Aegis CIC Operator/Supervisor (CG 47-64) (AEGIS CIC OP/SUP)	33-P	29-M
OS Advanced Mod I (AAW) (OS ADV MOD I)	19-P	16-M
OS Advanced Mod II (ASW/ASUW) (OS ADV MOD II)	19-P	16-M
Tactical Warfare Overview (TAC WAR OVERVIEW)	5-P	0-M
Amphibious Planning (AMPHIB PLANNING)	5-P	5-M
Mine Countermeasures Helicopter Control (MINCTRMEAHELOCON)	5-P	5-M
Force High Level Terminal Display Operator (FHLT DISPLAY OP)	40-P	33-M
Antisubmarine Air Controller Non-NTDS Qualification (ASAC NON-NTDS QUAL)	26-P	22-M
Antisubmarine Air Controller NTDS Qualification (ASAC NTDS QUAL)	26-P	22-M
LAMPS MK-3 Air Tactical Control Operator (ATACO) (LAMPS MK-3 ATACO)	54-P	45-M
Air Intercept Controller Conventional Qualification (AIC CONV QUAL)	40-P	33-M
Air Intercept Controller NTDS Qualification (AIC NTDS QUAL)	40-P	33-M
Air Intercept Controller Supervisor (AIC SUPERVISOR)	19-P	16-M
Tactical Air Control for Amphibious Operations (AIR CONTL PHIBOPS) ^c	5-P	5-M
Flag Data Display System (FDDS) Operator (FDDS OPERATOR)	19-P	16-M
AN/SYS-2 (V) 1 IADT Operator (AN/SYS-2(V)1 OP)	26-P	22-M
Tomahawk Weapons Control System Operator AN/SWG-2 (TOMAHAWK OP AN/SWG-2)	54-P	45-M
LCAC Navigator Phase 1 (LCAC NAVIGATOR)	35-P	29-M
Operations Specialist Intermediate (OS INTERMEDIATE)	19-P	16-M
CV/CVN CDS Block 0 Initial Upgrade Training (CV/CVN CDS BLOCK 0)	19-P	16-M

 $^{^{}a}P = Peacetime.$

 $^{^{}b}M = Mobilization.$

 $^{^{\}mathbf{c}}$ Since data were not available from TRAINTRACK, this course was not included in the following tables.

Table 20
OS FY89: Course Prerequisites

Title ^a	Prerequisites	
OS "A"	ASVAB: b 5-7, WK+AR=103 ASVAB: 8-14/J1, VE+MK+CS=153. Normal hearing and color perception. Clearance: CONFIDENTIAL.	
AEGIS OP/SUP CIC	Must be assigned to a CG 47 class ship, E-1 or above.	
OS ADV MOD 1	E-6 to E-8. clearance: SECRET.	
OS ADV MOD II	E-6 to E-8. Clearance: SECRET.	
TAC WAR OVERVIEW	Officers and E-6 (OS) and above.	
AMPHIB PLANNING	Graduates of Amphibious Warfare Indoctrination Course, A-2G-0037, or equivalent course or experience. Clearance: SECRET.	
MINCTRMEAHELOCON	OS3 (E-4) or above. Clearance: SECRET.	
FHLT DISPLAY OP	Clearance: CONFIDENTIAL, SECRET to gain access to building.	
ASAC NON-NTDS QUAL	Clearance: SECRET. OS3 (E-4) and above, Combat Information Center (CIC) Watch Supervisor PQS qualified, and 6 months CIC at-sea experience with antisubmarine warfare (ASW) operations. Mandatory minimum score of 60 on pretest prior to enrollment; 12 months obligated service from class convening (CLCVN) date.	
ASAC NTDS QUAL	Clearance: SECRET. OS3 (E-4) and above, CIC Watch Supervisor PQS qualified, Navy Enlisted Classification (NEC) 0317 and 6 months CIC at-sea experience with ASW operations. Mandatory minimum score of 60 on pretest prior to enrollment; 12 months obligated service from CLSCVN date.	
LAMPS MK-3 ATACO	OS2 (E-5) and above. Applicable NECs for NTDS input or utilization.	

^aSee Table 19 for full course names.

^bASVAB = Armed Services Vocational Aptitude Battery, which includes the following tests: Word Knowledge (WK), Arithmetic Reasoning (AR), Mathematics Knowledge (MK), Coding Speed (CS), and Paragraph Comprehension (PC). VE = Verbal Score = WK+PC.

Table 20 (Continued)

OS FY89: Course Prerequisites

Title ^a	Prerequisites
AIC CONV QUAL	OS2 (E-5) and above. Minimum 1 year obligated service from CLSCVN date. Minimum of 1 year recent operational CIC experience on a combatant vessel, including performance in the Antiair Warfare (AAW) environment as an air tracker, identification (ID) operator, or radar control officer. Satisfactory completion of the AIC Preschool Handbook prior to enrollment.
AIC NTDS QUAL	OS2 (E-5) and above. Minimum of 1 year recent operational CIC experience on a combatant ship, the last 6 monds must include performance in the AAW environment. Candidates must be ordered to or be serving in a unit requiring AIC. Satisfactory completion of the AIC Preschool Handbook prior to enrollment. Minimum 1 year obligated service from CLSCVN date. Clearance: SECRET.
AIC SUPERVISOR	OS1 (F 5) and above a currently proficient AICs. Minimum 1 year oblinering a currently proficient AICs.
AIR CNTL PHIBOPS	E-6 and above. Clearance: SECRET.
FDDS OPERATOR	OS E-5 to E-9 assigned to duties requiring service in task force command center (TFCC) or supporting spaces. Minimum 1 year operational experience. Clearance: SECRET.
AN/SYS-2 (V) 1 OP	OS "A" school and a minimum of 6 months at-sea experience. Clearance: CONFIDENTIAL to gain access to classroom spaces.
TOMAHAWK OP AN/ SWG-2)	Graduate of OS "A" school, E-5 or above. Background investigation (BI) for TOP SECRET initiated prior to CLSCVN. Clearance: SECRET.
LCAC NAVIGATOR	OS2 (E-5) or above. Physically qualified.
OS INTERMEDIATE	OS3 (E-4) or above with minimum of 1 year operational time at sea.
CV/CVN CDS BLOCK 0	Clearance: Secret.

^aSee Table 19 for full course names.

^bASVAB = Armed Services Vocational Aptitude Battery, which includes the following tests: Word Knowledge (WK), Arithmetic Reasoning (AR), Mathematics Knowledge (MK), Coding Speed (CS), and Paragraph Comprehension (PC). VE = Verbal Score = WK+PC.

Training Attrition

Training attrition refers to disenrollment from/or unsatisfactory completion of a course due to academic deficiency or for nonacademic reasons. Table 21 presents the number of personnel who left training prior to graduation for academic and nonacademic reasons. Graduates plus attrites may not always total enrollment due to missing data. Data for Tactical Air Control for Amphibious Operations were not available from TRAINTRACK and this course is not included in the following tables.

Table 21
OS FY89: Training Attrition

Title ^a	Number Enrolled	Academic Attrites	Nonacademic Attrites	Number Graduated
OS "A"	2,622	8	0	2,614
AEGIS CIC OP/SUP	218	2	1	215
OS ADV MOD I	33	0	0	32
OS ADV MOD II	35	0	0	35
TAC WAR OVERVIEW	11	0	0	11
AMPHIB PLANNING	7	0	0	6
MINCTRMEAHELOCON	13	0	0	13
FHLT DISPLAY OP	7	0	0	7
ASAC NON-NTDS QUAL ^b	164	6	24	134
ASAC NTDS QUAL ^b	175	7	23	145
LAMPS MK-3 ATACOb	79	0	8	71
AIC CONV QUAL ^b	71	1	7	63
AIC NTDS QUAL ^b	166	5	19	142
AIC SUPERVISOR ^b	41	0	0	41
FDDS OPERATOR ^b	43	0	0	43
AN/SYS-2 (V) 1 OP	49	2	0	47
TOMAHAWK OP AN/SWG-2	22	0	0	22
LCAC NAVIGATOR	11	0	1	10
OS INTERMEDIATE ^b	198	0	0	198
CV/CVN CDS BLOCK 0	105	0	0	105

^{*}See Table 19 for full course names.

^bThese courses are taught at multiple sites. The sum of the information from the various sites is presented.

Table 21 shows that OS "A" school had the most academic attrites followed by ASAC NTDS QUAL. ASAC NON-NTDS QUAL had the most nonacademic attrites followed by ASAC NTDS QUAL.

Method of Instruction

Method of instruction refers to identification of whether a course is self-paced, computer managed, group-paced, or a combination of individualized instruction methods. All current courses are taught using either a group-paced or lock-step method of instruction.

Average Paygrade

Average paygrade refers to the average paygrade of individuals enrolled in a particular course. Table 22 shows the average paygrade of those personnel who took a course of instruction.

Most OSs attend formal schools when they are E-4s (Table 22).

Training Setbacks

Training setback refers to the number of times an individual was held back for academic and nonacademic reasons while enrolled in a particular course. Table 23 provides the number of times that individuals had setbacks for academic and nonacademic reasons in the OS courses.

As can be seen in Table 23, OS "A" school had the most academic and nonacademic setbacks.

NECs Awarded

NECs awarded refers to the number of Navy Enlisted Classification codes (NECs) granted following graduation from an NEC producing course. An NEC reflects special knowledge and skills that identify personnel and requirements. Table 24 presents the number of NECs awarded to those who earned them in NEC producing courses. The number of NECs awarded is less than the number enrolled when some individuals did not receive an NEC due to academic and nonacademic attrition and training interruptions.

Table 24 shows that LAMPS MK-3 ATACO and TOMAHAWK OP AN/SWG-2 had the highest ratio of awarded NECs to enrollees (100%) followed by AIC SUPERVISOR (94%).

Training Backlog

Training backlog refers to the number of days an individual was in a hold status awaiting enrollment or having enrolled is awaiting the convening date of a scheduled course. Table 25 shows the total and average number of days individuals were in hold status. The average was computed by dividing the total number of days by the number of individuals who had to wait.

Table 25 shows that OS "A" school had the highest number of days awaiting instruction followed by TOMAHAWK OP AN/SWG-2.

Table 22
OS FY89: Average Paygrade

Title ^a	Paygrade
OS "A"	E-1
AEGIS CIC OP/SUP	E-4
OS ADV MOD I	E-6
OS ADV MOD II	E-6
TAC WAR OVERVIEW	E-3
AMPHIB PLANNING	E-1
MINCTRMEAHELOCON	E-4
FHLT DISPLAY OP	E-2
ASAC NON-NTDS QUAL ^b	E-4
ASAC NTDS QUAL ^b	E-4
LAMPS MK-3 ATACOb	E-5
AIC CONV QUAL ^b	E-5
AIC NTDS QUAL ^b	E-5
AIC SUPERVISOR ^b	E-5
FDDS OPERATOR ^b	E-3
AN/SYS-2 (V) 1 OP	E-4
TOMAHAWK OP AN/SWG-2	E-4
LCAC NAVIGATOR	E-4
OS INTERMEDIATE ^b	E-4
CV/CVN CDS BLOCK 0	E-3

^aSee Table 19 for full course names.

^bThese courses are taught at multiple sites. The average of the information from the various sites is presented.

Table 23
OS FY89: Training Setbacks

Title ^a	Academic Setbacks	Nonacademic Setbacks
OS "A"	531	220
AEGIS CIC OP/SUP	0	0
OS ADV MOD I	0	0
OS ADV MOD II	0	0
TAC WAR OVERVIEW	0	0
AMPHIB PLANNING	0	0
MINCTRMEAHELOCON	0	0
FHLT DISPLAY OP	0	0
ASAC NON-NTDS QUAL ^b	0	0
ASAC NTDS QUAL ^b	0	0
LAMPS MK-3 ATACO ^b	0	0
AIC CONV QUAL ^b	0	0
AIC NTDS QUAL ^b	0	0
AIC SUPERVISOR ^b	0	0
FDDS OPERATOR ^b	0	0
AN/SYS-2 (V) 1 OP	0	0
TOMAHAWK OP AN/SWG-2	0	0
LCAC NAVIGATOR	0	0
OS INTERMEDIATE ^b	0	0
CV/CVN CDS BLOCK 0	0	0

^aSee Table 19 for full course names.

^bThese courses are taught at multiple sites. The sum of the information from the various sites is presented.

Table 24 OS FY89: NECs Awarded

Title ^a	Number of Enrollees	Number of NECs ^b	NECs/ Enrollees (%)
AEGIS CIC OP/SUP	218	160	73
MINCTRMEAHELOCON	13	9	69
FHLT DISPLAY OP	7	6	86
ASAC NON-NTDS QUAL ^c	134	0	0
ASAC NTDS QUAL ^c	145	128	88
LAMPS MK-3 ATACO ^c	71	71	100
AIC CONV QUAL ^c	63	1	2
AIC NTDS QUAL ^c	142	116	82
AIC SUPERVISOR ^c	51	48	94
FDDS OPERATOR ^c	43	31	72
AN/SYS-2 (V) 1 OP	47	40	85
TOMAHAWK OP AN/SWG-2	22	22	100

^aSee Table 19 for full test names.

^bNEC = Navy Enlisted Classification.

^cThese courses are taught at multiple sites. The sum of the information from the various sites is presented.

Table 25
OS FY89: Days Awaiting Instruction

	Days Awaiting Instruction	
Title ^a	Total	Average
OS "A"	28,317	12.53
AEGIS CIC OP/SUP	13	13
OS ADV MOD I	0	0
OS ADV MOD II	0	0
TAC WAR OVERVIEW	2	1
AMPHIB PLANNING	1	1
MINCTRMEAHELOCON	0	0
FHLT DISPLAY OP	21	21
ASAC NON-NTDS QUAL ^b	40	9.67
ASAC NTDS QUAL ^b	20	5
LAMPS MK-3 ATACO ^b	7	3.5
AIC CONV QUAL ^b	20	4.5
AIC NTDS QUAL ^b	52	4.59
AIC SUPERVISOR ^b	8	4
FDDS OPERATOR ^b	12	2.4
AN/SYS-2 (V) 1 OP	0	0
TOMAHAWK OP AN/SWG-2	65	13
LCAC NAVIGATOR	0	0
OS INTERMEDIATE ^b	0	0
CV/CVN CDS BLOCK 0	0	0

^aSee Table 19 for full test names.

Training Interruptions

Training interruptions refers to the total and average number of times an individual was placed in a hold status when instruction was interrupted and the individual was unable to attend after the course convening date. Table 26 presents the total and average number of times individuals were placed in a hold status, after the course convening date, when instruction was interrupted and individuals were unable to attend the course. The average was computed by dividing the total number of interruptions by the number of individuals who had interruptions.

^bThese courses are taught at multiple sites. The sum or average of the information from the various sites is presented.

As can be seen in Table 26, OS "A" school had the most of training interruptions followed by AIC NTDS QUAL.

Table 26
OS FY89: Training Interruptions

Title ^a	Total Number	Average Number
OS "A"	986	1.3
AEGIS CIC OP/SUP	0	0
OS ADV MOD I	0	0
OS ADV MOD II	0	0
TAC WAR OVERVIEW	0	0
AMPHIB PLANNING	0	0
MINCTRMEAHELOCON	0	0
FHLT DISPLAY OP	0	0
ASAC NON-NTDS QUAL ^b	2	1
ASAC NTDS QUAL ^b	2	1
LAMPS MK-3 ATACO ^b	0	0
AIC CONV QUALb	2	1
AIC NTDS QUAL ^b	7	1
AIC SUPERVISOR ^b	0	0
FDDS OPERATOR ^b	0	0
AN/SYS-2 (V) 1 OP	0	0
TOMAHAWK OP AN/SWG-2	0	0
LCAC NAVIGATOR	0	0
OS INTERMEDIATE ^b	0	0
CV/CVN CDS BLOCK 0	0	0

^aSee Table 19 for full test names.

Average Number On Board

Average number on board refers to the average number of planned or actual students enrolled in a particular course. Table 27 provides the actual, as opposed to planned, Average On Board (AOB) for a course of instruction. AOB was computed by multiplying the number of enrolled students by the number of course-instruction days and dividing by 365, the number of days in a

^bThe courses are taught at multiple sites. The average of the information from the various sites is presented.

year. For courses that are offered infrequently and or have small throughput, it is possible to have an AOB of less than 1.

As can be seen in Table 27, OS "A" school had the highest student (AOB) throughput followed by AEGIS CIC OP/SUP.

Table 27
OS FY89: Average On Board (AOB)

Title ^a	Actual AOB
OS "A"	689.62
AEGIS CIC OP/SUP	19.71
OS ADV MOD I	1.72
OS ADV MOD II	1.82
TAC WAR OVERVIEW	.15
AMPHIB PLANNING	.1
MINCTRMEAHELOCON	.18
FHLT DISPLAY OP	.77
ASAC NON-NTDS QUAL ^b	3.89
ASAC NTDS QUAL ^b	6.23
LAMPS MK-3 ATACO ^b	5.85
AIC CONV QUAL ^b	3.89
AIC NTDS QUAL ^b	9.1
AIC SUPERVISOR ^b	1.33
FDDS OPERATOR ^b	1.12
AN/SYS-2 (V) 1 OP	3.49
TOMAHAWK OP AN/SWG-2	3.25
LCAC NAVIGATOR	1.05
OS INTERMEDIATE ^b	5.16
CV/CVN CDS BLOCK 0	5.47

^aSee Table 19 for full test names.

^bThese courses are taught at multiple sites. The average of the information from the various sites is presented.

OS Job Attitudes

Job attitudes refers to personal perceptions about the job in particular and the Navy in general. Data were collected from the Navy Personnel Survey (NPS), OS Training Attitude Survey (Appendix D) and OS Job Performance Survey - Supervisor (Appendix D). The NPS was used because it was an available source of existing data. Since the NPS OS sample is 1 percent of the OS population, the inferences drawn about the OS population from such a small sample must be drawn carefully. As a result of this drawback and because there were no other existing data sources, an in-house survey was developed to collect OS job attitudes. Here, the sampling was designed to achieve at least a 10 percent population representation. Job attitudes consist of two variables: job satisfaction and organizational commitment.

Surveys were sent to 2,734 OSs. Of the 1,344 returned, 1,087 surveys were usable, 250 were returned as undeliverable, and 7 were not usable. This accounted for 49 percent of the surveys sent. Table 28 presents the distribution of personnel who responded to the OS Training Attitude Survey by paygrade.

Table 28
OS Training Attitude Survey: Respondent
Distribution by Paygrade

Paygrade	Distribution (%)
E-1	2
E-2	6
E-3	13
E-4	19
E-5	26
E-6	24
E-7	6
E-8	3
E-9	1

Job Satisfaction

Job satisfaction refers to an individual's perceptions of satisfaction with his or her job in particular and the Navy in general. Items addressing several facets of job satisfaction, such as promotion prospects, the actual work undertaken, and the Navy in general were identified in the NPS. Responses to these items are reported in Table 29. In the OS Training Attitude Survey, preexisting job satisfaction survey items were modified to fit current requirements.

Navy Personnel Survey Results. Responses from 128 active duty OSs ranging from E-2 to E-9 to eight job satisfaction questions are presented in Table 29.

Table 29

Navy Personnel Survey: OS Job Satisfaction

			Respon	ses (%)	,,, <u>, </u>	
Item	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree	N/A ^a
I'm allowed to exercise the responsibilities of my job.	11	36	22	14	13	2
I'm satisfied with my current job.	15	37	15	19	11	2
I like the work I do in the Navy.	24	44	14	9	7	1
I'm satisfied with my physical work conditions.	16	46	14	17	4	2
I enjoy my career in the Navy.	16	33	27	13	7	3
Satisfied with amount of sea duty.	7	22	13	21	11	
I'm satisfied with my career development.	13	38	18	17	13	
My immediate supervisor treats me fairly.	32	52	9	3	4	

Note. Percentage totals may not always equal 100 due to rounding and, in some cases, missing data.

Table 29 shows that OSs were generally satisfied with their level of responsibility, their current job, the work that they do, the physical work conditions, and their career development. There was a high degree of variance on their satisfaction with the amount of sea duty with approximately one fourth not responding, one third agreeing, one third disagreeing, and one eighth neutral. There was strong agreement that they were treated fairly by their supervisor.

OS Training Attitude Survey Results. The OS Training Attitude Survey contained 19 job satisfaction items. Respondents were asked to rate their degree of agreement on a 5-point Likert-type scale where 1 = strongly disagree and 5 = strongly agree. Appendix F presents the mean responses with standard deviations for each question and each paygrade.

OSs generally agreed that their chances for advancement were good. The E-8s agreed that they had received enough opportunities for formal training, while all others were undecided. The perception of being able to fully use their abilities increases as a function of paygrade; E-9s believed that they have this opportunity more than did E-3s and below. There was general agreement among all OSs that their formal training helped them perform their jobs and would

 $^{^{}a}N/A = Not applicable.$

provide them with good chances for getting ahead. They generally agreed that they were satisfied with their Navy progress and all responding E-9s strongly agreed. Agreement that they had been placed in the right rating increased as a function of increasing paygrade.

OSs strongly agreed that they had a great sense of personal satisfaction when they performed their job well and were generally pleased that they were in the OS rating. Agreement that their supervisors encouraged them to receive formal training and that their supervisors were aware of their formal training needs was higher for E-3s and below and E-7s and above than for E-4s through E-6s. OSs generally agreed that they had received adequate on-the-job training and the team training. OSs agreed that they had received enough feedback about their job performance and this agreement increased as paygrade increased. OSs' agreement that they got a feeling of accomplishment from their job generally increased as paygrade increased as did their agreement that the promotion system is adequate. OSs generally agreed that they were learning skills that would be useful later in their enlistments. OSs' agreement that their commands were quick to use existing formal training increased as their paygrade increased.

Organizational Commitment

Organizational commitment refers to an individual's perceptions of commitment to the Navy and expressed intentions to complete his or enlistment. These aspects were identified in the NPS and are reported in Table 29. In the OS Training Attitude Survey, preexisting organizational commitment survey items were modified to fit current requirements.

Navy Personnel Survey Results. The responses of 128 OSs ranging from E-2 to E-9 to five organization commitment questions are presented in Table 30.

Table 30 shows that almost half of the OSs intend to stay in the Navy until retirement, approximately one quarter are undecided, and approximately one quarter intend to leave. The amount of sea duty appears to have a negative effect on the decision to reenlist, while formal school opportunities seem to have a positive effect. Most OSs appear happy with their choice of joining the Navy.

OS Training Attitude Survey Results. The OS Training Attitude Survey contained 18 organizational commitment items. The distribution of personnel who responded is shown in Table 28. Appendix F presents the mean responses for each question and for each paygrade.

OSs strongly agreed that they would complete their enlistments. They generally agreed that they have confidence in the OSs with whom they work, they encourage each other to give their best efforts, and they maintain high standards of performance. OSs generally agreed that they felt a sense of pride and achievement in their job and this increased as paygrade increased. OSs generally expressed positive feelings toward their command, intention to make a career out of the Navy, and willingness to put forth extra effort to help the Navy.

OS E-1s through E-5s were undecided about whether they identified with the Navy's problems and values, and this identification increased as paygrade increased for E-6s through E-9s. Most OSs strongly agreed that it was important for them to advance in their rating as quickly as possible. When responding to the question of whether they would leave the Navy if given the chance, E-1s

Table 30

Navy Personnel Survey:
OS Organizational Commitment

		Responses ^a (%)								
Item	Definitely Stay	Probably Stay	Don't Know	Probably Not Stay	Definitely Not Stay	Retire Leave	Retire Undecided			
Your Navy career plans to stay in Navy until										
retirement.	26	18	26	9	17	2	2			
<u> </u>		Very Positive	Somewhat Positive	No Effect	Somewhat Negative	Very Negative				
Effect of amount of sea duty on decision to make Navy										
career.		4	6	19	32	13				
 ;		Extremely Positive	Somewhat Positive	No Effect	Somewhat Negative	Extremely Negative				
Effect of pay on decision to			10		42	11				
stay in Navy.		Strongly	18	Don't	43	11 Strongly				
		Agree	Agree	Know	Disagree	Disagree Disagree	N/A ^b			
Opportunity to get Navy formal training made me more likely to stay in.		6	33	21	22	7	9			
Glad Navy chosen over other										
organizations.		20	34	21	11	10	3			

^aPercentage totals may not always equal 100 due to rounding and, in some cases, missing data.

somewhat agreed, E-2s through E-5s were mostly undecided, and E-6s through E-9s generally disagreed. All OSs generally agreed that they would like to gain more responsibility. Their intention to reenlist increased as paygrade increased: E-1s through E-4s generally disagreed that they intend to reenlist and E-6s through E-9s generally agreed that they intend to reenlist.

 $^{^{}b}N/A = Not applicable.$

OS Job Performance Survey - Supervisor: Job Attitude Items

The OS Job Performance Survey - Supervisor contained three job attitude items and these results are presented in Table 31.

Table 31
OS Job Performance Survey - Supervisor: Job Attitude Items

	Responses (%)							
Paygrade	Negative	Neutral	Positive					
My subordina	tes job attitudes a	re						
E-1	28	53	19					
E-2	31	48	21					
E-3	28	47	25					
E-4	24	45	31					
E-5	12	39	49					
E-6	7	34	59					
	Yes	No						
My subordina	ites take pride in t	heir work						
E-1	61	39						
E-2	62	38						
E-3	65	35						
E-4	70	30						
E-5	82	18						
E-6	85	15						
My subordina	tes are committed	to the Navy						
E-i	31	69						
E-2	27	73						
E-3	34	66						
E-4	43	57						
E-5	67	33						
E-6	84	16	····					

Table 31 shows that supervisors' perceptions of their subordinates' job attitudes depend upon the subordinates' paygrade. Supervisors rated their subordinates as having more positive work attitudes, more pride, and higher commitment as their paygrade increased.

Electronic Warfare Technician (EW) Baseline Data

Data collection on specific EW variables began in October 1990. Unless otherwise indicated, data were collected for FY89.

EW Job Performance

The term job performance refers to various aspects of work that an individual performs. Data were collected for the following seven areas of job performance: tasks assigned in rating, PQS progress, time on task, recommendation for advancement, supervision, skill level, and supervisor confidence. Data for tasks assigned in rating came from the EW Occupational Standards (OCCSTDs) (Appendix G). Data for the other variables came from the EW Job Performance Survey - Supervisor (Appendix H). In this survey, supervisors rated their subordinates on measures of job performance by paygrade.

A total of 485 EW supervisor surveys were sent to a random sample of E-6s and E-7s. Of the 317 surveys returned, 50 were returned as undeliverable and 101 recipients did not supervise anyone.

Tasks Assigned in Rating

Tasks assigned in rate refers to a listing of the types of rating specific tasks performed by paygrade. The EW Occupational Standards (OCCSTDs) were used to identify the tasks performed in the EW rating. These tasks are presented in Appendix G.

PQS Progress

PQS progress refers to the extent to which an individual is exhibiting satisfactory completion of PQS requirements. PQS progress data were collected from the EW Job Performance Survey - Supervisor (Appendix H). Supervisors were asked to rate their subordinates' progress with their PQS requirements. Table 32 shows the results.

Table 32 shows a general increase PQS progress as a function of paygrade. As the paygrade increased, supervisors' ratings of adequate PQS progress also increased.

Time on Task

Time on task refers to the amount of time spent on various categories of rating specific and nonrating specific tasks. Time-on-task data were collected from the EW Job Performance Survey - Supervisor. Supervisors were asked to rate the amount of time subordinates spend on task. Table 33 presents the results.

Table 33 shows that supervisors' perceptions of the amount of time subordinates spent performing tasks decreased as paygrade increased.

Table 32

EW Job Performance Survey - Supervisor: PQS Progress

	Responses ^a (%)						
Paygrade	Unsatisfactory	Satisfactory	Exceptional				
E-1	11	78	11				
E-2	7	71	22				
E-3	4	67	29				
E-4	5	64	31				
E-5	4	56	40				
E-6	5	54	41				

^aPercentages may not always total 100 due to rounding.

Table 33

EW Job Performance Survey - Supervisor: Time on Task

	Responses ^a (%)							
Paygrade	Unsatisfactory	Below Average	Average	Above Average	Exceptional			
E-1	10		90					
E-2	3	10	65	19	3			
E-3	1	15	64	17	3			
E-4	2	18	53	25	2			
E-5	1	6	45	39	9			
E-6		6	27	49	18			

^aPercentages may not always total 100 due to rounding.

Recommendation for Advancement

Recommendation for advancement refers to a supervisor's stated commitment to recommend a subordinate for advancement based on a subordinate's overall record of performance. Recommendation for advancement data were collected from the EW Job Performance Survey - Supervisor. Supervisors were asked whether they would recommend their subordinates for advancement. The results are presented in Table 34.

Table 34 shows that the higher the subordinates' paygrade is, the more likely supervisors would be to recommend them for advancement, with the exception of E-1s. This result may be due to the lowered expectations and advancement requirements of seaman recruits.

Table 34

EW Job Performance Survey - Supervisor: Recommendation for Advancement

	Responses ^a (%)						
Paygrade	Not Recommended	Progressing	Recommended				
E-1		33	67				
E-2	10	32	58				
E-3	7	22	71				
E-4	3	27	70				
E-5	1	15	85				
E-6	2	14	83				

^aPercentages may not always total 100 due to rounding.

Supervision

Supervision refers to the amount of supervision required by an individual in performing assigned tasks. Supervision data were collected from the EW Job Performance Survey - Supervisor. Supervisors were asked to rate their subordinates on how much supervision they require. The results are provided in Table 35.

Table 35

EW Job Performance Survey - Supervisor: Supervision

Paygrade					
	Constant	Excessive	Average	Minimal	Infrequent
E-1	10	20	70		
E-2	3	19	55	23	
E-3	3	14	52	28	3
E-4	4	11	46	37	3
E-5	1		22	47	29
E-6		1	17	26	56

^aPercentages may not always total 100 due to rounding.

Table 35 shows one of the clearest examples of supervisors' favorable ratings increasing as a function of paygrade. Subordinates required less supervision as paygrade increased.

Skill Level

Skill level refers to the performance level attained by paygrade. Skill level data were collected from the EW Job Performance Survey - Supervisor. Skill level consists of two variables: work quality on assigned tasks and skill and knowledge levels exhibited. Supervisors were asked to rate their subordinates (E-1 through E-6) on these variables.

Work Quality. Table 36 presents the supervisors' ratings of the quality of their subordinates' work on their assigned tasks.

Table 36

EW Job Performance Survey - Supervisor: Work Quality

	Responses ^a (%)							
Paygrade	Unsatisfactory	Below Average	Average	Above Average	Exceptional			
E-1		10	60	30				
E-2		13	48	29	8			
E-3	1	7	53	32	7			
E-4	1	7	51	35	5			
E-5	1	4	19	63	13			
E-6	~~~	5	14	52	29			

^aPercentages may not always total 100 due to rounding.

Table 36 shows that, supervisors' ratings of subordinates' work quality were more favorable as paygrade increased.

Skill and Knowledge Level. Skill and knowledge level refers to an individual's ability to demonstrate necessary skill and knowledge. Supervisors were asked to rate their subordinates on their skill and knowledge level. Table 37 provides the results.

Table 37 shows that supervisors' ratings of their subordinates' skill and knowledge levels increased with paygrade.

Table 37

EW Job Performance Survey - Supervisor: Skill and Knowledge Level

	Responses ^a (%)						
Paygrade	Unsatisfactory	Below Average	Average	Above Average	Exceptional		
E-1	10	30	50	10			
E-2	3	26	52	19			
E-3		21	49	28	2		
E-4	3	12	49	32	5		
E-5	1	3	31	51	14		
E-6		4	16	50	31		

^aPercentages may not always total 100 due to rounding.

Supervisor Confidence

Supervisor confidence refers to the extent to which an individual's work performance meets a supervisor's expectations on rating specific and nonrating specific tasks. Supervisor confidence data were collected from the EW Job Performance Survey - Supervisor. Supervisor confidence consists of three variables: performance on maintenance tasks, performance on operator tasks, and ability to respond to unusual work demands. Supervisors were asked to rate their subordinates (E-1 through E-6) on each of these variables.

Maintenance Tasks. Maintenance tasks refers to an individual's ability to perform maintenance tasks. Supervisors were asked to rate their subordinates on their performance on maintenance tasks. Supervisors' responses are shown in Table 38.

Table 38 shows a continuation of the trend that supervisor ratings become more positive as paygrade increases. Over one third of the E-1s through E-3s did not perform maintenance tasks. Maintenance tasks were mainly performed by E-4 and E-5 EWs.

Table 38

EW Job Performance Survey - Supervisor: Maintenance Tasks

	Responses ^a (%)						
Paygrade	Unsatis- factory	Below Average	Average	Above Average	Exceptional	N/A ^b	
E-1	10	20	30			40	
E-2	***	19	29	16	3	32	
E-3	1	17	30	17	4	30	
E-4	1	14	41	24	13	7	
E-5	1	6	25	41	17	10	
E-6	***	1	10	36	27	27	

^aPercentages may not always total 100 due to rounding.

Operator Tasks. Operator tasks refers to an individual's ability to perform operator tasks. Supervisors were asked to rate their subordinates on their performance on operator tasks. Supervisors' responses are presented in Table 39.

Table 39

EW Job Performance Survey - Supervisor: Operator Tasks

	Responses ^a (%)					
Paygrade	Unsatis- factory	Below Average	Average	Above Average	Exceptional	N/A ^b
E-1		40	60			
E-2	3	35	45	17		
E-3	1	23	52	21	3	
E-4	3	11	41	40	6	
E-5		3	27	41	29	1
E-6		4	17	35	44	

^aPercentages may not always total percent due to rounding.

Table 39 shows that supervisors' ratings of their subordinates' ability to perform operator tasks increased with paygrade.

 $^{^{}b}N/A = Not applicable.$

 $^{^{}b}N/A = Not applicable.$

Ability to Respond to Unusual Work Demands. Ability to respond to unusual work demands refers to personnel readiness. Supervisors were asked to rate their subordinates on their ability to respond to unusual work demands. The results are provided in Table 40.

Table 40

EW Job Performance Survey - Supervisor: Ability to Respond

 					
Paygrade	Unsatisfactory	Below Average	Average	Above Average	Exceptional
E-1		20	60	20	
E-2	7	17	53	17	7
E-3	1	20	54	21	4
E-4	5	14	43	36	2
E-5	2	6	35	39	19
E-6	1	2	26	41	30

^aPercentages may not always total 100 due to rounding.

Table 40 shows a general increase in ratings of the subordinates' ability to respond to unusual work demands as a function of an increase in paygrade.

EW Job Performance Survey - Supervisor: Background Information

Table 41 presents the number of individuals evaluated in each paygrade, the average number of months the supervisors had supervised these subordinates, whether the supervisors had provided job performance feedback, and whether the training the subordinates had received had provided them with the background necessary to perform their job.

Table 41 shows that almost all supervisors provide their subordinates with feedback regarding their job performance. As paygrade increases, there is a general increase in the number of individuals supervised and an increase in the average number of months they had been supervised. This trend plateaued at the E-4 to E-6 level. There is also a general increase in supervisors' perceptions of adequate training as a function of paygrade, where the higher the paygrade was, the more confidence supervisors had that the training their subordinates had received provided them with the background to perform their job.

Table 41

EW Job Performance Survey - Supervisor: Background Information

Paygrade	Total No. of Individuals Supervised	Average No. of Months Supervised	Feedback Provided on Perf. (%)	Training Received Provided Background to Perform Job (%)
E-1	25	3.3	Yes 100	Yes 60 No 40
E-2	51	5.5	Yes 100	Yes 65 No 35
E-3	124	10.1	Yes 99 No 1	Yes 72
E-4	263	13.2	Yes 98 No 2	Yes 75 No 25
E-5	257	14.8	Yes 100	Yes 88 No 12
E-6	206	13.8	Yes 100	Yes 86 No 14

EW Force Structure

The term force structure refers to the composition of personnel in the Navy. This composition is viewed in terms of the number of personnel entering the Navy, how they are distributed, and whether they stay or leave. The personnel totals reported below are not always equal. The reason for this difference is that some totals contain information not included in others. For example, "type of enlistment" data contains extraneous information about reenlistment and officers that was excluded in the reported total. Also, when personnel leave the Navy, they are dropped from the Enlisted Master Record (EMR), thereby shrinking the totals. This is the reason that the EMR cannot provide accurate attrition data. For these reasons, the attrition variable was not used. Baseline data were collected on the following six force structure variables: personnel acquisition, assignment, advancement, distribution of personnel, turbulence, and retention.

Personnel Acquisition

Personnel acquisition refers to the number of recruits acquired for the purpose of enlistment or induction. Table 42 provides the number of EW personnel, by term of enlistment, who entered or reentered the Navy in FY89.

Table 42 shows that the majority of EW personnel enlisted for 4 years followed by 6 years.

Table 42
EW FY89: Term of Enlistment

Years of Obligation	Number of Personnel	
2	34	
3	128	
4	2,244	
5	146	
6	518	
Total	3,070	

Table 43 provides the number of EW personnel, by type of enlistment, who entered the Navy for the first time in FY89.

Table 43

EW FY89: Type of Enlistment

Type of Enlistment	Number of Personnel	
First enlistment, bonus	85	
First enlistment, no bonus	1,701	
Total	1,786	

Table 43 shows that the majority of personnel enlisted without a bonus.

Assignment

Assignment refers to the number of sea-based and shore-based billets. Table 44 provides the number of sea-based and shore-based billets by paygrade.

Table 44 shows that 73 percent of the total billets were sea-based and 27 percent were shore-based.

Table 44

EW FY89: Billets

	Current (01/31/90) EW Billets			
Paygrade	Sea-based	Shore-based	Total	
E-9	14	16	30	
E-8	30	42	72	
E-7	240	166	406	
E-6	378	278	656	
E-5	398	159	557	
E-4	556	43	599	
E-3	297	18	315	
Total	1,913	722	2,635	

Advancement

Advancement refers to the number of personnel eligible for advancement to a higher paygrade. Table 45 presents the number of individuals, by paygrade, who were eligible for advancement due to their time in rate.

Table 45
EW FY89: Advancement

Paygrade	Number of Personnel	
E-9	3	
E-8	11	
E-7	16	
E-6	183	
E-5	152	
E-4	230	
E-3	48	
E-2	37	
E-1	17	
Total	697	

Table 45 shows that the majority of those eligible for advancement were E-4s through E-6s followed by E-1s through E-3s.

Distribution of Personnel

Distribution of personnel refers to the number of personnel in each paygrade. Table 46 lists the distribution of personnel by paygrade. Ages for EW technicians ranged from 19 to 51 with a mean age of 26.6 years old. The distribution total (Table 46) is higher than the billet total (Table 44) because the distribution total includes nonbillet situations such as attending school, being in transition, or being in the brig.

Table 46

EW FY89: Overall Personnel Distribution

Paygrade	Number of Personnel		
E-9	25		
E-8	72		
E-7	376		
E-6	611		
E-5	642		
E-4	1,060		
E-3	161		
E-2	108		
E-1	32		
Total	3,087		

Table 46 shows that the majority of EWs are E-4s through E-6s followed by E-7s through E-9s.

Table 47 provides the proportion of individuals classified as apprentice, journeyman, and master in the entire EW rating.

Table 47 shows that the majority of EW personnel were journeymen (E-4s through E-6s) followed by masters (E-7s through E-9s).

Table 47
EW FY89: Personnel Level Distribution

Personnel Level	Number of Personnel	
Master (E-7s through E-9s)	473	
Journeyman (E-4s through E-6s)	2,313	
Apprentice (E-1s through E-3s)	301	
Total	3,087	

Turbulence

Turbulence refers to events that interfere with normal, planned, and scheduled operations, processes, or activities. Table 48 presents the number of individuals who will rotate in a given year, which reflects turbulence in the fleet.

Table 48

EW Turbulence by Calendar Year

Planned Rotation Date	Number of Personnel	
1989	314	
1990	1,035	
1991	763	
1992	396	
1993	94	

The greatest number of personnel will rotate in 1990 followed by 1991 (Table 48).

Retention

Retention refers to the number of individuals who reenlist upon completion of their active obligated service. Table 49 presents the number of personnel who reenlisted.

The majority of personnel reenlisted within 24 hours with a bonus followed by those who reenlisted within 24 hours without a bonus (Table 49).

Table 49
EW FY89: Retention

Type of Reenlistment	Number of Personnel	
Within 24 hours, bonus	959	
Within 24 hours, no bonus	232	
Within 3 months, bonus	4	
Within 3 months, no bonus	15	
Over 3 months, no bonus	62	
Total	1,272	

EW Training Effectiveness

Training effectiveness refers to questions of change in school curriculum and general student academic performance. Training effectiveness consists of 12 variables that measure the extent of change within EW training after implementation of the CTP. The EW career pipeline contains 14 courses that may be impacted by the implementation. For tracking purposes, data were collected for individuals who are currently EWs and had taken the course. Baseline data for these 14 courses were collected on the following variables: curriculum revision, course length, course prerequisites, training attrition, course graduates, method of instruction, average paygrade, training setbacks, NECs awarded, training backlog, training interruptions, and average number on board. Course graduate and attrition data were also collected.

Curriculum Revision

Curriculum revision refers to the extent of changes in course content. Appendix I presents the skill profiles for courses. Some courses have no skill profiles because they were never developed, according to curriculum developers who were contacted.

Course Length

Course length refers to changes in course length. The current course lengths for both peacetime and mobilization appear in Table 50.

Table 50
EW FY89: Course Length

	Length in Days	
Title (Abbreviation)	P ^a	M ^b
Electronics Warfare Technician Class "A" Basic (Class "A" Basic)	61-P	51-M
Electronics Warfare Technician AN/SLQ-32 Operator (AN/SLQ-32 OPS)	39-P	32-M
Electronics Warfare Technician CV/CVN Operations (CV/CVN OPS)	19-P	16-M
Electronics Warfare Technician Electronic Technology (ELTECH)	147-P	122-M
Electronics Warfare Technician AN/SLQ °? (V)2 Maintenance (AN/SLQ-32 (V)2 MAINT)	54-P	45-M
Electronics Warfare Technician AN/SLQ-32 (V)3 Maintenance (AN/SLQ-32 (V)3 MAINT)	40-P	33-M
Electronics Warfare Technician AN/WLR-1H Maintenance (AN/WLR-1H MAINT)	68-P	56-M
Electronics Warfare Technician AN/SLQ-17 Maintenance (AN/SLQ-17 MAINT)	145-P	120-M
Electronic Warfare Advanced Operations Refresher (ADV OPS REF)	12-P	10-M
System Test Equipment (SYS TEST EQUIP)	5-P	5-M
Electronic Warfare Applications (Advanced) (ADV APPS)	47-P	0-M
Surface Electronic Warfare Threat Recognition (SURF THRT REC)	12-P	10-M
Electronic Warfare Module Manager (MODULE MGR)	12-P	10-M
Surface Electronic Warfare Operations (Intermediate) (SURF EW INT OPS)	19 -P	16-M

^aP = Peacetime.

Course Prerequisites

Course prerequisites refers to the minimum level of prior training, experience, and/or paygrade required to attend a specific course. The current course prerequisites for both peacetime and mobilization appear in Table 51.

 $^{{}^{}b}M = Mobilization.$

Table 51

EW FY89: Course Prerequisites

Title ^a	Prerequisites
Class "A" Basic	Requirement: Ch. 7 ENLTRANSMAN. ^b ASVAB ^c : 218. Clearance: SECRET.
AN/SLQ-32 OPS	Graduate of: EW Class "A" Basic. ASVAB ^c : 218. Clearance: SECRET.
CV/CVN OPS	Graduate of: Class "A" Basic. Clearance: SECRET.
ELTECH	Requirement: Ch. 7 ENLTRANSMAN. ^b ASVAB ^c : 218. Clearance: SECRET.
AN/SLQ-32 (V) 2 MAINT	Graduate of: Digital Training, ELTECH, and SYS TEST EQUIP. Clearance: SECRET.
AN/SLQ-32 (V) 3 MAINT	Graduate of: ELTECH and AN/SLQ-32 (V) 2 MAINT. Clearance: SECRET.
AN/WLR-1H MAINT	Graduate of: ELTECH and AN/SLQ-32 (V) 2 MAINT. Clearance: SECRET.
AN/SLQ-17 MAINT	Graduate of: Digital Training, ELTECH, and SYST TEST EQUIP. Clearance: SECRET.
ADV OPS REF	Qualified EW Operator.
SYS TEST EQUIP	Graduate of: ELTECH. Clearance: SECRET.
ADV APPS	E-6 through E-9 with orders to a NEC 1781 billet. Graduate of: EW Watch Supervisor. Clearance: SECRET NOFORN.
SURF THRT REC	Designated EW Strikers through E-6. Minimum 6 months EW OPS experience. Clearance: SECRET.
MODULE MGR	E-5 and above with minimum 6 months at sea in an EW billet. Clearance: SECRET.
SURF EW INT OPS	E-4 through E-6. Graduate of: SURF THRT REC. Minimum 12 months shipboard experience. Clearance: SECRET.

^aSee Table 50 for full course names.

^bEnlisted TRANSMAN (15909C).

^cASVAB = Armed Services Vocational Aptitude Battery.

Training Attrition

Training attrition refers to dissenrollment from/or unsatisfactory completion of a course due to academic deficiency or for nonacademic reasons. Table 52 presents the number of personnel who left training prior to graduation for academic and nonacademic reasons. Graduates plus attrites may not always total the enrollment due to missing data.

Table 52

EW FY89: Training Attrition

Title ^a	Number Enrolled	Academic Attrites	Nonacademic Attrites	Number Graduated
Class "A" Basic	316	0	0	316
AN/SLQ-32 OPS	360	0	0	356
CV/CVN OPS	56	2	0	54
ELTECH	385	18	5	362
AN/SLQ-32 (V) 2 MAINT	337	7	4	325
AN/SLQ-32 (V) 3 MAINT	78	0	0	78
AN/WLR-1H MAINT	23	0	0	23
AN/SLQ-17 MAINT	17	1	0	16
ADV OPS REF	321	2	0	318
SYS TEST EQUIP	201	0	1	198
ADV APPS	54	0	0	54
SURF THRT REC ^b	215	3	22	190
MODULE MGR ^b	230	5	11	214
SURF EW INT OPSb	220	3	11	205

^aSee Table 50 for full course names.

Table 52 shows that ELTECH had the most academic attrites followed by AN/SLQ-32(V)2 MAINT. SURF EW THRT REC had the highest number of nonacademic attrites. MODULE MGR and SURF EW INT OPS tied for second highest number of nonacademic attrites.

Method of Instruction

Method of instruction refers to identification of whether a course is self-paced, computer managed, group-paced, or a combination of individualized instruction methods. All current courses are taught using either a group-paced or lock-step method of instruction.

^bThese courses are taught at multiple sites. The sum of the information from the various sites is presented.

Average Paygrade

Average paygrade refers to the average paygrade of individuals enrolled in a particular course. Table 53 shows the average paygrade of those personnel who took a course of instruction.

Table 53
EW FY89: Average Paygrade

Title ^a	Paygrade
Class "A" Basic	E-1
AN/SLQ-32 OPS	E-2
CV/CVN OPS	E-2
ELTECH	E-4
AN/SLQ-32 (V) 2 MAINT	E-4
AN/SLQ-32 (V) 3 MAINT	E-4
ANWLR-1H MAINT	E-4
AN/SLQ-17 MAINT	E-4
ADV OPS REF	E-4
SYS TEST EQUIP	E-4
ADV APPS	E-6
SURF THRT REC ^b	E-4
MODULE MGR ^b	E-4
SURF EW INT OPS ^b	E-4

^aSee Table 50 for full course names.

Most EWs attend formal schools when they are E-4s (Table 53).

Training Setbacks

Training setback refers to the number of times an individual was held back for academic and nonacademic reasons while enrolled in a particular course. Table 54 provides the number of times that individuals had setbacks, for academic and non-academic reasons, in the EW courses.

As can be seen in Table 54, ELTECH had the highest number of academic and nonacademic setbacks followed by Class "A" Basic.

^bThese courses are taught at multiple sites. The sum of the information from the various sites is presented.

Table 54

EW FY89: Training Setbacks

Title ^a	Academic Setbacks	Nonacademic Setbacks
Class "A" Basic	47	52
AN/SLQ-32 OPS	4	15
CV/CVN OPS	. 0	4
ELTECH	120	65
AN/SLQ-32 (V) 2 MAINT	9	16
AN/SLQ-32 (V) 3 MAINT	1	2
AN/WLR-1H MAINT	0	0
AN/SLQ-17 MAINT	0	0
ADV OPS REF	3	3
SYS TEST EQUIP	2	1
ADV APPS	0	0
SURF THRT REC ^b	0	0
MODULE MGR ^b	0	0
SURF EW INT OPS ^b	0	0

^aSee Table 50 for full course names.

NECs Awarded

NECs awarded refers to the number of Navy Enlisted Classification codes (NECs) granted following graduation from an NEC producing course. An NEC reflects special knowledge and skills that identify personnel and requirements. Table 55 presents the number of NECs awarded to those who earned them in NEC producing courses. The number of NECs awarded is less than the number enrolled when some individuals did not receive an NEC due to academic and nonacademic attrition and training interruptions.

As can be seen in Table 55 AN/WLR-1H MAINT and AN/SLQ-32(V)3 MAINT awarded the highest percentage of NECs.

^bThese courses are taught at multiple sites. The sum of the information from the various sites is presented.

Table 55
EW FY89: NECs Awarded

Title ^a	Number of Enrollees	Number of NECs ^b	NECs/ Enrollees (%)
CV/CVN OPS	56	49	88
AN/SLQ-32 (V) 2 MAINT	337	239	71
AN/SLQ-32 (V) 3 MAINT	78	71	91
AN/WLR-1H MAINT	23	21	91
AN/SLQ-17 MAINT	17	11	64
ADV APPS	54	39	72

^aSee Table 50 for full test names.

Training Backlog

Training backlog refers to the number of days an individual was in a hold status awaiting enrollment or having enrolled is awaiting the convening date of a scheduled course. Table 56 shows the total and average number of days individuals were in hold status. The average was computed by dividing the total number of days by the number of individuals who had to wait.

As can be seen in Table 56, AN/SLQ-32 (V)2 MAINT had the highest number of days awaiting instruction followed by Class "A" Basic.

^bNEC = Navy Enlisted Classification code.

Table 56
EW FY89: Days Awaiting Instruction

	Days Awai	Days Awaiting Instruction		
Title ^a	Total	Average		
Class "A" Basic	6,905	22.71		
AN/SLQ-32 OPS	665	2.38		
CV/CVN OPS	134	5.15		
ELTECH	671	2.35		
AN/SLQ-32 (V) 2 MAINT	10,569	37.75		
AN/SLQ-32 (V) 3 MAINT	259	4.89		
AN/WLR-1H MAINT	715	35.75		
AN/SLQ-17 MAINT	844	52.75		
ADV OPS REF	578	32.39		
SYS TEST EQUIP	5,766	32.39		
ADV APPS	165	4.23		
SURF THRT REC ^b	0	0		
MODULE MGR ^b	6	6		
SURF EW INT OPS ^b	0	0		

^aSee Table 50 for full test names.

Training Interruptions

Table 57 presents the total and average number of times an individual was placed in a hold status when instruction was interrupted and the individual was unable to attend after the course convening date. The average was computed by dividing the total number of interruptions by the number of individuals who had interruptions.

As can be seen in Table 57, ELTECH had the highest total number of interruptions followed by Class "A" Basic.

^bThese courses are taught at multiple sites. The sum or average of the information from the various sites is presented.

Table 57

EW FY89: Training Interruptions

Title ^a	Total Numbe	Average Number
Class "A" Basic	130	1.27
AN/SLQ-32 OPS	34	1.31
CV/CVN OPS	1	1
ELTECH	180	1.4
AN/SLQ-32 (V) 2 MAINT	31	1.24
AN/SLQ-32 (V) 3 MAINT	3	1
ANWLR-1H MAINT	2	1
AN/SLQ-17 MAINT	9	1.29
ADV OPS REF	6	1.2
SYS TEST EQUIP	2	1
ADV APPS	0	0
SURF THRT REC ^b	0	0
MODULE MGR ^b	0	0
SURF EW INT OPS ^b	0	0

^aSee Table 50 for full test names.

Average Number On Board

Average number on board refers to the average number of planned or actual students enrolled in a particular course. Table 58 provides the actual, as opposed to planned, Average On Board (AOB) for a course of instruction. AOB was computed by multiplying the number of enrolled students by the number of course-instruction days and dividing by 365, the number of days in a year.

As can be seen in Table 58, ELTECH had the highest student throughput (AOB) followed by Class "A" Basic.

^bThe courses are taught at multiple sites. The average of the information from the various sites is presented.

Table 58

EW FY89: Average On Board (AOB)

Title ^a	Actual AOB
Class "A" Basic	52.81
AN/SLQ-32 OPS	38.47
CV/CVN OPS	2.92
ELTECH	155.05
AN/SLQ-32 (V) 2 MAINT	49.86
AN/SLQ-32 (V) 3 MAINT	8.55
AN/WLR-1H MAINT	4.28
AN/SLQ-17 MAINT	6.75
ADV OPS REF	10.55
SYS TEST EQUIP	2.75
ADV APPS	6.95
SURF THRT REC ^b	2.36
MODULE MGR ^b	1.51
SURF EW INT OPS ^b	2.87

^aSee Table 50 for full test names.

EW Job Attitudes

Job attitudes refers to personal perceptions about the job in particular and the Navy in general. Data were collected from the Navy Personnel Survey (NPS), EW Training Attitude Survey (Appendix H), and EW Job Performance Survey - Supervisor (Appendix H). The NPS was used because it was an available source of existing data. Since the NPS EW sample was 1 percent of the EW population, inferences drawn about the EW population from such a small sample must be drawn carefully. As a result of this drawback and because no other data sources were available, an in-house survey was developed to collect EW technician job attitudes. Here, the sampling was designed to achieve at least a 10 percent population representation. Job attitudes consist of two variables: job satisfaction and organizational commitment.

Surveys were sent to 607 EWs. Of the 356 returned, 280 were usable and 76 were returned as undeliverable. This accounted for 59 percent of the surveys sent. Table 59 presents the distribution of personnel who responded to the EW Training Attitude Survey.

^bThese courses are taught at multiple sites. The average of the information from the various sites is presented.

Table 59

EW Training Attitude Survey: Respondent
Distribution by Paygrade

Paygrade	Distribution (%) ^a
E-1	.4
E-2	1
E-3	5
E-4	25
E-5	26
E-6	22
E-7	15
E-8	4
E-9	1

^aPercentage may not total 100 due to rounding.

Job Satisfaction

Job satisfaction refers to an individual's perceptions of satisfaction with his or her job in particular and the Navy in general. Items addressing several facets of job satisfaction, such as promotion prospects, the actual work undertaken, and the Navy in general, were identified in the NPS and their responses are reported in Table 60. In the EW Training Attitude Survey, preexisting job satisfaction survey items were modified to fit current requirements.

Navy Personnel Survey Results. Responses to eight job satisfaction questions from 33 active duty EWs ranging from E-3 through E-9 are presented in Table 60.

Table 60 shows that EWs were generally satisfied with the amount of sea duty, their level of responsibility, their current job, and the work that they do. They were also generally satisfied with the physical work conditions and their career development. There was strong agreement that they were treated fairly by their supervisor.

Table 60

Navy Personnel Survey: EW Job Satisfaction

	Responses (%)					
Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
Satisfied with amount of sea duty.	10	42	21	7	12	
I am allowed to exercise responsibilities of my job.	9	38	14	32	7	
I'm satisfied with my current job.	6	38	23	24	9	
I like the work I do in the Navy.	12	55	17	9	6	
I'm satisfied with my physical work conditions.	8	55	19	12	7	
I'm satisfied with my career development.	9	37	16	27	11	
I enjoy my career in the Navy.	5	46	16	24	9	
My immediate supervisor treats me fairly.	33	48	11	2	6	

Note. Percentage totals may not always equal 100 due to rounding and, in some cases, missing data.

EW Training Attitude Survey Results. The EW Training Attitude Survey contained 19 job satisfaction items. Respondents were asked to rate their degree of agreement on a 5-point Likert-type scale where 1 = strongly disagree, 2 = somewhat agree, 3 = undecided, 4 = somewhat agree, and 5 = strongly agree. Appendix J presents the mean responses with standard deviations for each question and each paygrade.

E-1s, E-2s, E-5s, and E-9s generally agreed that their chances for advancement were good, while the EWs in the other paygrades were undecided. The E-7s and E-8s agreed that they had received enough opportunities for formal training and were able to fully use their abilities, while others were undecided. The E-9s who responded disagreed 1 at they were able to fully use their abilities. There was general agreement among EWs that the formal training that they had received helped them perform their job and would provide them with good chances for getting ahead, while the E-9s were undecided. E-5s and above generally agreed that they were satisfied with their Navy progress and E-4s and below were undecided. EWs generally agreed that they had been placed in the right rating and E-9s were undecided.

EWs strongly agreed that they had a great sense of personal satisfaction when they performed their job well and were generally pleased that they were in the EW rating. Agreement that their supervisors encouraged them to receive formal training and that their supervisors were aware of their formal training needs was higher for E-3s and below and E-7s and above than for E-4s through E-6s. EWs generally agreed that the on-the-job training that they had received was adequate and they were undecided about the adequacy of the team training that they had received. EWs' agreement that they had received feedback about their job performance increased as paygrade increased. Their agreement that they got a feeling of accomplishment from their job generally increased as paygrade increased as did their agreement that the promotion system is adequate. EWs generally agreed that they were learning skills that would be useful later in their enlistments. Their agreement that their commands were quick to use existing formal training increased as their paygrade increased. In the last two cases, the E-9s were undecided.

Organizational Commitment

Organizational commitment refers to an individual's perceptions of commitment to the Navy and expressed intentions to complete his or her enlistment. These aspects were identified in the NPS and are reported in Table 61. In the EW Training Attitude Survey, preexisting organizational commitment survey items were modified to fit current requirements.

Navy Personnel Survey Results. Table 61 presents the responses from 33 EWs ranging from E-3 to E-9 to five organization commitment questions.

Table 61 shows that most EWs were unsure about staying in the Navy until retirement: Nineteen percent responded that they were definitely making the Navy a career; 28 percent were evenly divided in their intentions to stay or leave prior to retirement. The amount of sea duty appears to have a negative effect on the decision to reenlist, while formal school opportunities seem to have a positive effect. Most EWs appear happy with their choice of joining the Navy.

EW Training Attitude Survey Results. The EW Training Attitude Survey contained 18 organizational commitment items. The distribution of personnel who responded is shown in Table 59. Respondents were asked to rate their degree of agreement on a 5-point Likert-type scale where 1 = strongly disagree and 5 = strongly agree. Appendix J presents the mean responses for each question and for each paygrade.

EWs strongly agreed that they would complete their enlistments. They generally agreed that they have confidence in the EWs with whom they work, they encourage each other to give their best efforts, and they maintain high standards of performance. EWs generally agreed that they felt a sense of pride and achievement in their job and this increased as paygrade increased. EWs generally expressed positive feelings toward their command and a willingness to put forth extra effort to help the Navy. E-1s through E-4s disagreed that they intended to make the Navy their career; E-5s were undecided; and E-6s through E-9s agreed that they intended to make a career of the Navy.

E-2s through E-5s were undecided about whether they identified with the Navy's problems and values, and this identification increased as paygrade increased for E-6s through E-9s. Most EWs strongly agreed that it was important for them to advance in their rating as quickly as possible.

Table 61

Navy Personnel Survey:
EW Organizational Commitment

		Responses ^a (%)					
Item	Definitely Stay	Probably Stay	Don't Know	Probably Not Stay	Definitely Not Stay	Retire Leave	Retire Undecided
Your Navy career plans to stay in Navy							
until retirement.	19	14	30	14	13	2	8
		Very Positive	Somewhat Positive	No Effect	Somewhat Negative	Very Negative	
Effect of amount of sea duty on decision to make Navy							
career.		3	9	24	29	24	
		Extremely Positive	Somewhat Positive	No Effect	Somewhat Negative	Extremely Negative	
Effect of pay on decision to stay in Navy.		2	12	22	54	10	
		Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree	N/A ^t
Opportunity to get Navy formal training made me more likely to stay in.		5	34	25	23	9	4
Glad Navy chosen over other							
organizations.		12	41	28	10	7	2

^aPercentage totals may not always equal 100 due to rounding and, in some cases, missing data.

When responding to the question of whether they would leave the Navy if given the chance, E-1s, E-7s, and E-8s somewhat disagreed, E-2s through E-4s agreed, and E-9s were undecided. All EWs generally agreed that they would like to gain more responsibility. EWs' agreement about the importance of reenlisting increased as paygrade increased, where E-1s through E-4s generally disagreed, E-5s and E-9s were undecided, and E-6s through E-8s generally agreed that reenlistment was important to them. EWs' intention to reenlist followed a similar pattern where E-1s through E-4s and E-9s disagreed that they intended to reenlist, E-5s were undecided, and E-6s through E-8s reported agreement that they intended to reenlist.

 $^{^{}b}N/A = Not applicable.$

EW Job Performance Survey - Supervisor: Job Attitude Items

The EW Job Performance Survey - Supervisor contained three job attitude items and these results are presented in Table 62.

Table 62 shows that supervisors' perceptions of their subordinates' job attitudes depend somewhat upon the subordinates' paygrade. The E-1s, E-5s, and E-6s have more positive work attitudes more pride, and higher commitment than the E-2s through E-4s.

Table 62

EW Job Performance Survey - Supervisor: Job Attitude Items

	Responses (%)				
Paygrade	Negative	Neutral	Positive		
My subordinate	s job attitudes are				
E-1		40	60		
E-2	3	48	48 ^a		
E-3	13	31	57		
E-4	11	41	48		
E-5	9	39	59		
E-6	4	29	68		
	Yes	No	·		
My subordinate	s take pride in their w	ork			
E-1	100				
E-2	87	87 13			
E-3	86	14			
E-4	85	15			
E-5	93 7				
E-6	99	1			
My subordinate	s are committed to the	Navy			
E-1	60	40			
E-2	53	47			
E-3	57 43				
E-4	44	56			
E-5	57	43			
E-6	85 15				

^aPercent totals may not always equal 100 due to rounding.

Conclusions and Recommendations

The baseline data reported here indicates the state of the OS and EW ratings before the implementation of the recommendations in the OS and EW CTPs.

After the OS and EW CTPs have been implemented and the courses have been revised and incorporated into the curriculums, data on the same attributes and variables should be obtained again. Then, the baseline data should be compared with the post-implementation data to determine the change in the rating produced by the rating training continuum methodology.

References

- Megrditchian, A. M., & Moranville, A. (1991). Rating training continuum: Evaluation plan (NPRDC-TN-91-25). San Diego: Navy Personnel Research and Development Center. (AD-A242 067)
- Moranville, A. (1992). Rating training continuum: Development procedures (NPRDC-TR-92-7). San Diego: Navy Personnel Research and Development Center. (AD-A246 415)
- Nakada, M. K., Milczewsky, W., & Wax, S. R. (1989). Enlisted training tracking file (TRAINTRACK) (NPRDC-TN-90-2). San Diego: Navy Personnel Research and Development Center. (AD-A214 984)
- Office of Chief of Naval Operations. (31 March 1989). *Total force training strategy* (OPNAV INSTRUCTION 1500.51B). Washington, DC: Author.

Appendix A

Evaluation Attributes and Variables

Evaluation Attributes and Variables

Job Performance

The job performance variables were selected to determine the proficiency of the individual. They indicate whether or not the revised training pipeline is producing a more effective sailor.

Tasks assigned in rate. A listing of the types of rate specific tasks performed by paygrade.

PQS progress. Extent to which an individual completes PQS requirements.

Time on task. Time spent on various categories of rating and nonrating specific tasks.

Recommendation for advancement. Supervisor's stated commitment to recommend an individual for advancement based on overall record of performance.

Supervision. Amount of supervision required by an individual in performing assigned tasks.

Skill level. Performance level attained by paygrade.

Supervisor confidence. Extent to which an individual's work performance meets a supervisor's expectations on rating specific and nonrating specific tasks.

Force Structure

The force structure variables highlight the personnel resource climate confronting the OS/EW rating detailers and the fleet they serve.

Personnel acquisition. Number of recruits acquired for the purpose of enlistment or induction.

Assignment. Number of current sea-based and shore-based billets.

Advancement. Number of personnel eligible for advancement to a higher paygrade.

Distribution of personnel. Number of personnel in each paygrade.

Turbulence. Events which interfere with normal planned and scheduled operations, processes, or activities, such as the number of personnel assigned to permanent change of station (PCS)/temporary duty assignments (TDYs).

Retention. Number of individuals who reenlisted upon completion of their EAOS.

Training Effectiveness

The training effectiveness variables address questions of change in school, curriculum, and general student academic performance. They were selected to determine the impact that continuum recommendations have on the overall training environment.

Curriculum revision. Extent of changes in course content.

- Course prerequisites. Change in the minimum level of prior training, experience, and/or paygrade required to attend a specific course.
- **Training attrition.** Dissenrollment from/or unsatisfactory completion of a course due to academic deficiency or for nonacademic reasons.
- Course graduates. Number of individuals who have successfully completed a course of instruction.
- Method of instruction. Identification of whether a course is self-paced, computer managed, group-paced, or a combination of individualized instruction methods.
- Average paygrade. The average paygrade of individuals enrolled in a particular course.
- Training Setbacks. The number of academic and nonacademic setbacks an individual incurred in a particular course.
- NECs awarded. Number of Navy Enlisted Classification (NEC) codes which reflect special knowledge and skills that identify personnel and requirements following graduation from an NEC producing course.
- Training backlog. The number of days an individual was in a hold status awaiting enrollment or having enrolled is awaiting the convening date of a scheduled course.
- **Training interruptions.** The total and average number of times an individual was placed in a hold status when instruction was interrupted and the individual was unable to attend after the course convening date.
- Average number on board. Number of planned or actual students multiplied by the number of course-instruction days divided by the number of days in a year.

Career Attitude

The career attitude variables are based on feelings, opinions, and intentions rather than on performance. They are easily affected by personal and environmental changes.

- Job satisfaction. An individual's perceptions of satisfaction with his or her job in particular and the Navy in general.
- Organizational commitment. An individual's perceptions of commitment to the Navy and expressed intentions to complete his or her enlistment.

Appendix B

Organizational Databases

Organizational Databases

TRAINTRACK

TRAINTRACK (Nakada, Milczewsky, & Wax 1989) contains the longitudinal record of training for each individual (service attrites, officers, and enlisted personnel from all services) dating back to 1979. These data are collected at the end of each fiscal year from the Student Master File (SMF), Survival Tracking File (STF), and Chief of Naval Education and Training (CNET) cost files for individuals who attended a school that reports to the Navy Integrated Resources and Administration System (NITRAS).

Catalog of Navy Training Courses

The Catalog of Navy Training Courses (CANTRAC) contains information on Navy schools and courses. CANTRAC provides a consolidated and computerized catalog presenting courses in a standardized format. The data include course descriptions, convening schedules, course prerequisites, and locations. In some cases, CANTRAC also provides the skill profiles associated with the courses.

Enlisted Master Record

The Enlisted Master Record (EMR) contains career information for every enlisted individual in the Navy. The EMR provides personal and service data, education and school history, classification codes, duty preferences as well as rate and rating information.

Navy Personnel Survey Database

The Navy Personnel Survey Database contains attitudinal information on job satisfaction, organizational climate, training and education programs, and other career related issues.

Appendix C

Operations Specialist (OS) Occupational Standards (OCCSTDS)

OPERATIONS SPECIALIST

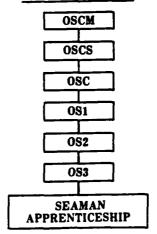
(0S)



Operations Specialists (OS) function as plotters, Radiotelephone and Command and Control sound powered telephone talkers and maintain Combat Information Center (CIC) displays of strategic and tactical information; operate surveillance and altitude radars, Identification Friend or Foe (IFF), and associated equipment; serve as watch supervisors and section leaders; interpret and evaluate presentations and tactical situations and make recommendations to superiors during watch conditions; apply a thorough knowledge doctrine and procedures applicable to CIC operations contained in U.S. Navy Instructions and Allied or U.S. Navy Publications and procedures necessary for radar navigation contained in Naval Oceanographic Office publications; provide to command technical information and assistance related to Anti-Surface Warfare, Anti-Air Warfare, Anti-Submarine Warfare, Amphibious Warfare, Mine Warfare; Naval Gunfire Support, and search and rescue operations; plan, organize, direct and administer shipboard training programs; provide technical information and advice on capabilities, limitations, reliability and operational readiness of CIC equipment; advise staffs and commands on matters of operational readiness, control and use of equipment and personnel, and other matters pertaining to the Operations Specialist's area.

GENERAL INFORMATION

CAREER PATTERN



Normal path of advancement to Chief Warrant Officer and Limited Duty Officer categories can be found in NAVMILPERSCOMINST 1131.1.

SPECIAL PHYSICAL REQUIREMENTS

Vision 20/100 correctable in each eve to 20/20; normal color perception; normal hearing; no speech impediment. Refer to Articles 15.10 or 15.69 and 15.13A and 15.21 of the Manual of the Medical Department, U.S. Navy for details on color perception, hearing and speech requirements.

CITIZENSHIP/SECURITY REQUIREMENTS

Must be eligible for access to classified information.

SAFETY

The observance of proper safety precautions in all areas is an integral part of each billet and the responsibility of every Navy man & woman; therefore, it is a universal requirement for all ratings.

OPERATIONS SPECIALIST THIRD CLASS (OS3)

22 TACTICAL SUPPORT

- *22268 MAINTAIN ORDER OF BATTLE AND CURRENT SITUATION ON VERTICAL AND HORIZONTAL PLOTS
- *22269 SOLVE BASIC MANEUVERING BOARD PROBLEMS FOR COURSE, SPEED, CLOSEST POINT OF APPROACH (CPA), DESIRED WIND, TRUE WIND AND CHANGE OF STATION
- 22276 MAINTAIN FORMATIONS AND SCREENS ON FORMATION DIAGRAM AND SURFACE PLOT
- *22280 PLOT TARGETS DURING NAVAL GUNFIRE SUPPORT (NGFS)
- *22281 PROVIDE LOCATION, IDENTITY AND MOVEMENT OF CONTACTS GAINED FROM RADAR, ESM, ACOUSTIC SYSTEMS AND PLOTS
- *22282 IDENTIFY, CORRELATE AND UPDATE SURFACE CONTACTS (SURFACE TRACKER)
- *22283 IDENTIFY, CORRELATE AND UPDATE AIR CONTACTS (AIR TRACKER)

24 NAVIGATION

- *24276 USE DRT/NC2 DURING MAN OVERBOARD, SEARCH AND RESCUE (SAR) CONDITIONS
- *24304 ESTABLISH SHIP'S POSITION ON NAUTICAL CHARTS USING RADAR RANGES, BEARING AND ALL SOURCE INFORMATION
- *24319 USE PARALLEL MOTION PROTRACTOR (PMP) AND DRT/NC2

32 SECURITY

- *32252 PERFORM EMERGENCY DESTRUCTION PROCEDURES
- *32572 COMPLY WITH OPERATIONAL, COMMUNICATIONS AND PHYSICAL SECURITY REQUIREMENTS

33 COMMUNICATIONS

- *33269 RECOGNIZE AND REPORT COMMUNICATIONS INTRUSION, JAMMING AND INTERFERENCE
- *33270 RECOGNIZE AND REPORT EFFECTS OF RADIO FREQUENCY (RF) PROPAGATION ON RADIOTELEPHONE COMMUNICATIONS
- 33309 ENCODE, DECODE AND INTERPRET TACTICAL SIGNALS
- 33310 ENCRYPT AND DECRYPT ON RADIOTELEPHONE CIRCUITS
- 33317 INTERPRET AND DISSEMINATE LINK 14 PRINTOUT DATA
- *33336 CARRY OUT SECURE AND UNSECURE, INTERIOR AND EXTERIOR COMMUNICATIONS DURING INDEPENDENT OPERATIONS
- *33337 CARRY OUT SECURE AND UNSECURE, INTERIOR AND EXTERIOR COMMUNICATIONS DURING TASK FORCE OPERATIONS

43 ELECTRONIC SYSTEMS OPERATION

43007 PERFORM OPERATIONAL TESTS AND ADJUSTMENTS ON EQUIPMENT

Ch. No. 1 January 1987 (Effective January 1988)

2-A-3

^{*}Denotes change

- *43292 ENERGIZE, OPERATE, TUNE AND SECURE RADARS
- 43293 DISTINGUISH RADAR CONTACTS CAUSED BY SURFACE AND AIR TARGETS FROM THOSE CAUSED BY LAND, WEATHER AND ANALAGOUS PROPAGATION
- *43294 OPERATE IDENTIFICATION FRIEND OR FOL (IFF) LQUIPMENT
- *43295 OPERATE AND ADJUST RADAR INDICATOR AND NAVAL TACTICAL DATA SYSTEM (NTDS CONSULES
- *43296 DISPLAY AND DISSEMINATE RADAR AND IFF INFORMATION
- *43297 RECOGNIZE, IDENTIFY AND REPORT RADAR INTERFERENCE AND JAMMING

44 ELECTRONIC MAINTENANCE

*44494 PERFORM PREVENTIVE MAINTENANCE ON ASSOCIATED RADAR EQUIPMENT

65 SEAMANSHIP

*65336 RECOGNIZE AND REPORT POSSIBLE COLLISION OR GROUNDING

68 GENERAL ADMINISTRATION

- 68023 MAINTAIN LOGS
- 68624 MAINTAIN PUBLICATIONS
- 68049 USE PUBLICATIONS

69 TECHNICAL ADMINISTRATION

- 69016 COMPLETE MAINTENANCE DATA SYSTEM (MDS) FORMS
- 69667 USE CHARTS
- *69746 MAINTAIN AND UPDATE CHARTS

79 LOGISTICS

79019 ORDER SUPPLIES AND EQUIPMENT

OPERATIONS SPECIALIST SECOND CLASS (OS2)

22 TACTICAL SUPPORT

- *22273 CORRELATE INFORMATION REGARDING LOCATION, IDENTITY AND MOVEMENT OF CONTACTS
- *22274 SOLVE MANEUVERING BOARD PROBLEMS FOR AN AVOIDING COURSE
- *22275 CARRY OUT COMBAT INFORMATION CENTER (CIC) PREPARATIONS FOR GETTING UNDERWAY
- 22276 CARRY OUT PROCEDURES TO LOCATE, IDENTIFY AND HOME LOST AIRCRAFT

Ch. No. 1 January 1987 (Effective January 1988)

2-A-4

^{*}Denotes change

- *22277 MAINTAIN PLOTS DURING ANTI-SUBMARINE WARFARE (ASW) OPERATIONS
- *22284 MAINTAIN PLOTS DURING ANTI-AIR WARFARE (AAW) OPERATIONS
- *22285 MAINTAIN PLOTS DURING ANTI-SURFACE WARFARE (ASUW) OPERATIONS
- *22286 COMPUTE AND PLOT LIMITING LINES OF APPROACH AND CONE OF COURSES
- *22287 COMPUTE AND PLOT TORPEDO DANGER AREA
- *22288 CONDUCT TARGET MOTION ANALYSIS (TMA)

24 NAVIGATION

- *24261 PLOT, CORRELATE AND PROVIDE NAVIGATIONAL INFORMATION DURING RADAR ASSISTED PILOTING
- *24294 DETERMINE DEAD RECKONING (DR), SET AND DRIFT, ADVANCE AND TRANSFER, CORRECTING AND COMPENSATING COURSES
- *24332 PLOT, CORRELATE AND PROVIDE NAVIGATIONAL INFORMATION DURING ANCHORING
- *24333 PLOT, CORRELATE AND PROVIDE NAVIGATIONAL INFORMATION DURING NAVAL GUNFIRE SUPPORT (NGFS)
- *24334 PLOT, CORRELATE AND PROVIDE NAVIGATIONAL INFORMATION DURING EMERGENCY SORTIE

32 SECURITY

- *32573 MAINTAIN NAVAL WARFARE PUBLICATION (NWP) LIBRARY
- *32574 MAINTAIN CUSTODY OF SECRET CIC MATERIAL
- *32575 COMPLY WITH COMMUNICATIONS MATERIAL SECURITY (CMS) SYSTEM REQUIREMENTS

33 COMMUNICATIONS

- *33313 MANAGE EXTERNAL COMMUNICATIONS IN RESPONSE TO INTRUSION OR JAMMING
- 33328 OPERATE PATCH PANELS USED FOR SOUND POWERED TELEPHONES AND RADIOTELEPHONES
- *33338 CARRY OUT SECURE OR UNSECURE, INTERIOR AND EXTERIOR COMMUNICATIONS DURING ASK OPERATIONS
- *33339 CARRY OUT SECURE OR UNSECURE, INTERIOR AND EXTERIOR COMMUNICATIONS DURING AAW OPERATIONS
- *33340 CARRY OUT SECURE OR UNSECURE, INTERIOR AND EXTERIOR COMMUNICATIONS DURING ASUW AND ANTISHIP MISSILE DEFENSE OPERATIONS
- *33341 CARRY OUT SECURE OR UNSECURE, INTERIOR AND EXTERIOR COMMUNICATIONS DURING NGFS OPERATIONS
- *33342 CARRY OUT SECURE OR UNSECURE, INTERIOR AND EXTERIOR COMMUNICATIONS DURING SAR OPERATIONS
- *33343 CARRY OUT SECURE OR UNSECURE, INTERIOR AND EXTERIOR COMMUNICATIONS DURING UNDERWAY REPLENISHMENT

Ch. No. 1 January 1987 (Effective January 1988)

^{*}Denotes change

- *33344 CARRY OUT SECURE OR UNSECURE, INTERIOR AND EXTERIOR COMMUNICATIONS DURING AMPHIBIOUS WARFARE OPERATIONS
- *33345 CARRY OUT SECURE OR UNSECURE, INTERIOR AND EXTERIOP COMMUNICATIONS DURING AIR OPERATIONS
- *33346 CARRY OUT SECURE OR UNSECURE, INTERIOR AND EXTERIOR COMMUNICATIONS DURING FLEET SUPPORT OPERATIONS
- *33347 CARRY OUT SECURE OR UNSECURE, INTERIOR AND EXTERIOR COMMUNICATIONS DURING MINE WARFARE OPERATIONS

65 SEAMANSHIP

*65337 USE INTERNATIONAL AND INLAND RULES OF THE ROAD AND MAKE APPROPRIATE RECOMMENDATIONS (MEETING, CROSSING, OVERTAKING, ETC.)

67 MANAGEMENT AND SUPERVISION

- *67287 COORDINATE AND CONTROL RADAR FUNCTIONS (TRACK SUPERVISOR/RADAR CONTROL OFFICER (RCO))
- 67406 SUPERVISE USE AND MAINTENANCE OF PUBLICATIONS AND CHARTS
- *67713 SUPERVISE CIC SURFACE OPERATIONS DURING READINESS CONDITIONS I, II, III, IV AND V

69 TECHNICAL ADMINISTRATION

69017 COMPLETE PLANNED MAINTENANCE SYSTEM (PMS) FEEDBACK REPORTS

70 TRAINING

*79288 INSTRUCT PERSONNEL IN CIC PROCEDURES AND EQUIPMENT OPERATIONS

OPERATIONS SPECIALIST FIRST CLASS (OS1)

22 TACTICAL SUPPORT

- *22279 CONTROL SMALL BOATS DURING AMPHIBIOUS OPERATIONS
- *22289 SUPERVISE ASW OPERATIONS DURING ALL READINESS CONDITIONS
- *22290 SUPERVISE AAW OPERATIONS DURING ALL READINESS CONDITIONS
- *22291 SUPERVISE ASUW AND ANTISHIP MISSILE DEFENSE OPERATIONS DURING ALL READINESS CONDITIONS
- *22292 SUPERVISE NGFS OPERATIONS DURING ALL READINESS CONDITIONS
- *22293 SUPERVISE SAR OPERATIONS DURING ALL READINESS CONDITIONS
- *22294 SUPERVISE UNDERWAY REPLENISHMENT OPERATIONS DURING ALL READINESS CONDITIONS
- *22295 SUPERVISE AMPHIBIOUS WARFARE OPERATIONS DURING ALL READINESS CONDITIONS

*Denotes change

Ch. No. 1 January 1987 (Effective January 1988)

2-A-6

- *22296 SUPERVISE AIR OPERATIONS DURING ALL READINESS CONDITIONS
- *22297 SUPERVISE FLEET SUPPORT OPERATIONS DURING ALL READINESS CONDITIONS
- *22298 SUPERVISE MINE WARFARE OPERATIONS DURING ALL READINESS CONDITIONS

24 NAVIGATION

*24335 SUPERVISE SURFACE OPERATIONS DURING RADAR ASSISTED PILOTING (RAP)

32 SECURITY

- *32265 SUPERVISE COMPLIANCE WITH COMMUNICATION MATERIAL SECURITY (CMS) SYSTEM REQUIREMENTS
- *32285 IMPLEMENT EMISSION CONTROL (EMCON) PLAN
- *32576 SUPERVISE EMERGENCY DESTRUCTION PROCEDURES

33 COMMUNICATIONS

*33251 IMPLEMENT CIC COMMUNICATIONS PLAN

57 MAINTENANCE PLANNING

- 57023 PREPARE PLANNED MAINTENANCE SCHEDULES
- 57024 REVIEW COMPLETED MAINTENANCE DATA SYSTEM (MDS) FORMS

59 MATERIAL CASUALTY CONTROL

*59257 INITIATE EFFORTS TO RESTORE EQUIPMENT OPERATION

68 GENERAL ADMINISTRATION

*68065 PRUPARE REPORTS

79 LOGISTICS

*79348 DETERMINE REQUIREMENTS FOR OPERATING MATERIALS, SPARE PARTS AND SUPPLIES

CHIEF OPERATIONS SPECIALIST (OSC)

22 TACTICAL SUPPORT

*22251 COORDINATE COMBAT WEAPONS SYSTEMS

24 NAVIGATION

*24331 EVALUATE AND DISSEMINATE SURFACE CONTACT INFORMATION DURING RADAR ASSISTED PLUOTING (SHIPPING OFFICER)

Ch. No. 1 January 1987 (Effective January 1988)

2-4-7

^{*}Denotes change

*24336 EVALUATE AND DISSEMINATE NAVIGATION INFORMATION DURING RADAR ASSISTED PILOTING (PILOTING OFFICER)

32 SECURITY

- *32577 MONITOR COMPLIANCE WITH OPERATIONAL, COMMUNICATIONS AND PHYSICAL SECURITY PROCEDURES
- *32578 SUPERVISE COMPLIANCE WITH EMCON PLAN

57 MAINTENANCE PLANNING

- 57030 VERIFY ACCURACT. OF PMS PACKAGE
- 57292 COORDINATE MAINTENANCE OF CIC EQUIPMENT

62 GENERAL WATCHSTANDING

*62253 COORDINATE AND CONTROL ALL FUNCTIONS OF CIC

67 MANAGEMENT AND SUPERVISION

- 67258 ORGANIZE PERSONNEL AND FACILITIES FOR CONDITIONS OF READINESS
- *67323 SUPERVISE IMPLEMENTATION OF THE CIC COMMUNICATIONS PLAN

68 GENERAL ADMINISTRATION

- *68015 DRAFT MESSAGES
- *68037 REVIEW REPORTS

69 TECHNICAL ADMINISTRATION

- 69266 PREPARE AND MAINTAIN THE CIC DOCTRINE
- *69731 IMPLEMENT NEW CIC PROCEDURES AND TACTICS

SENIOR CHIEF OPERATIONS SPECIALIST (OSCS)

57 MAINTENANCE PLANNING

57001 ADMINISTER A LONG-RANGE PLANNED MAINTENANCE PROGRAM

67 MANAGEMENT AND SUPERVISION

- 67015 ESTABLISH AND IMPLEMENT A PROGRAM FOR INTERVIEWING, EVALUATING AND ASSIGNENG PERSONNEL
- 57017 EVALUATE EFFECTIVENESS OF SAFETY AND INSPECTION PROGRAMS
- 67631 PROVIDE INFORMATION AND ADVISE ON UTILIZATION, CAPABILITIES, RELIABILITY AND OPERATIONS

Ch. No. 1 January 1987 (Effective January 1988)

2-A-8

^{*}Denotes change

*67324 SUPERVISE IMPLEMENTATION OF NEW CIC PROCEDURES, TACTICS AND DOCTRINE

68 GENERAL ADMINISTRATION

68051 WRITE CORRESPONDENCE

68052 WRITE DIRECTIVES AND INSTRUCTIONS

*68747 DETERMINE EFFECTIVENESS OF EMERGENCY DESTRUCTION PROCEDURES

69 TECHNICAL ADMINISTRATION

*69431 EVALUATE AND RECOMMEND CHANGES TO EMCON PLAN

MASTER CHIEF OPERATIONS SPECIALIST (OSCM)

57 MAINTENANCE PLANNING

57006 ESTABLISH AND MAINTAIN LIAISON WITH FLEET SUPPORT ACTIVITIES

59 MATERIAL CASUALTY CONTROL

59258 COORDINATE EVALUATION, MAINTENANCE AND IMPROVEMENT OF MATERIAL CONDITIONS AND COMBAT READINESS

67 MANAGEMENT AND SUPERVISION

67016 ESTABLISH GOALS, OBJECTIVES AND PRIORITIES

67030 PLAN, ORGANIZE, IMPLEMENT AND CONTROL ACTIVITIES

67033 REVIEW POLICY STATEMENTS, OPERATION ORDERS AND DIRECTIVES

68 GENERAL ADMINISTRATION

68067 PREPARE STAFF STUDIES

*68307 PREPARE AN. TO OPERATION ORDERS

69 TECHNICAL ADMINISTRATION

69327 PROVIDE INFORMATION ON CIC FUNCTIONAL STATUS

69435 EVALUATE PERFORMANCE AND OPERATIONAL CAPABILITIES OF CIC

78 FINANCIAL CONTROL

78001 DEVELOP OPERATING BUDGETS AND MONITOR EXPENDITURES

98 PLANNING AND ESTIMATING

98003 FORECAST FUTURE REQUIREMENTS

Ch. No. 1 January 1987 (Effective January 1988) (REVERSE IS BLANK)

2-A-9

^{*}Denotes change

Appendix D

Operations Specialist (OS) Surveys

OS Job Performance Survey - Supervisor	D-1
OS Training Attitude Survey	D-13

OPERATIONS SPECIALIST (OS) JOB PERFORMANCE SURVEY - SUPERVISOR

1991

"Your opinions and attitudes are important to me!"

Chief of Naval Personnel Vice Admiral J. M. Boorda

Navy Personnel Research and Development Center San Diego, California 92152-6800

PRIVACY ACT STATEMENT

Public Law 93-579, called the Privacy Act of 1974, requires that you be informed of the purposes and uses to be made of the information collected. Navy Personnel Research and Development Center may collect the information requested in the Operations Specialist (OS) Job Performance Survey - Supervisor, 1991, under the authority of 5 United States Code 301.

The information collected in the questionnaire will be used to evaluate existing and proposed Navy personnel policies and procedures.

Providing information in this form is voluntary. Failure to respond to any particular questions will not result in any penalty to the respondent except the possible lack of representation of your views in the final results and outcomes.

Report Control Symbol 1514-7 has been assigned to this survey.

OPERATIONS SPECIALIST (OS) JOB PERFORMANCE SURVEY - SUPERVISOR

Mailing Instructions

Request this survey be completed and returned within one week of receipt. Forward completed form in the envelope provided.

Mail to: Commanding Officer

Navy Personnel Research and Development Center

San Diego, CA 92152-6800

ATTN: April Moranville (Code 142)

If you have questions, please contact:

April Moranville (619) 553-7687 or A/V 553-7687

EWC(SW) Mike Pfaff (619) 553-7684 or A/V 553-7684

General Instructions

The purpose of this survey is to gather information about the job attitudes and performance of the people you <u>currently</u> supervise <u>within the OS rating</u>. The survey has been organized so that you can evaluate the individuals by paygrade. Please read each item <u>carefully</u>. Consider the individuals in each paygrade as a group and base your evaluation on their typical performance. Spaces have been provided for E-1 - E-6. You may not supervise individuals at each of those paygrades. Fill in only the paygrade spaces that you do supervise.

You have been chosen at random to participate in the OS Job Performance Survey. Your participation will help ensure that personnel in the OS rating are trained at the appropriate time in their career, and have the necessary skills and knowledge to perform their jobs. The information you provide will be used to indicate the training levels of your subordinates and will not reflect your capabilities as a supervisor in any way.

If you are not currently supervising any OSs in these paygrades, please check here ____ and return in the envelope provided.

Thank you for your time and effort!	

Example

E-6 Jones has been asked to evaluate his subordinates on their physical fitness. He supervises five E-4s and two E-5s. To answer the following questions, Jones considers the five E-4s as a group and indicates their typical performance. He does the same for the two E-5s. He does not supervise any E-1s, E-2s, E-3s, or E-6s so he leaves those spaces blank.

	C- 1		E-2	 E-J
<u></u>	E-4	B	E-5	 E-6

- 1. In general, the physical fitness of my subordinates is...
 - a. Unsatisfactory Overweight, and unable to complete assigned tasks because of strength limitations.
 - b. Satisfactory Generally physically strong enough to complete assigned tasks. Is within weight requirements.
 - c. Highly satisfactory Always able to do their share of the required manual labor. Excellent fitness reports.

OPERATIONS SPECIALIST (OS) JOB PERFORMANCE SURVEY - SUPERVISOR

E-1 E-2 E-3 E-4 E-5 E-6	 In general, the work quality on assigned tasks is a. Unsatisfactory - The work must be consistently re-done. b. Below average - Work is below standard of others. c. Average - Work is comparable to others on the job. d. Above average - Work quality often exceeds standard of others on the job. e. Exceptional - Work quality exceeds standard of others on the job.
E-1 E-2 E-3 E-4 E-5 E-6	 In general, the skill and knowledge levels exhibited are Unsatisfactory - Fails to demonstrate necessary skills and knowledge. Below average - Demonstrates some of the necessary skills and knowledge, but definitely substandard. Average - Demonstrates normal grasp of skills and knowledge. Above average - Often demonstrates superior grasp of skills and knowledge. Exceptional - Demonstrates outstanding grasp of skills and knowledge.
E-1E-2E-3 E-4E-5E-6	 3. In general, the performance on maintenance tasks is a. Unsatisfactory - Cannot complete tasks without assistance, work is usually substandard. b. Below average - Often requires assistance to complete tasks, work is often faulty. c. Average - Tasks are completed with little or no assistance, and the completed effort is of good quality. d. Above average - Usually completes tasks with no assistance, and the completed effort is generally of above average quality. e. Exceptional - Tasks are completed without assistance, and the completed job is of consistently excellent quality. f. Not applicable - Individual does not perform maintenance tasks.

E-1E-2E-3 E-4E-5E-6	 4. In general, the performance on operator tasks is a. Unsatisfactory - Cannot complete tasks without assistance, work is usually substandard. b. Below average - Often requires assistance to complete tasks, work is often inaccurate. c. Average - Tasks are completed with little or no assistance, and the completed effort is usually accurate. d. Above average - Usually completes tasks with no assistance, and the completed effort is accurate. e. Exceptional - Tasks are completed without assistance and the completed job is of consistently excellent quality.
E-1 E-2 E-3 E-4 E-5 E-6	 5. In general, the time spent on task is a. Unsatisfactory - Requires an extraordinary length of time to complete work assignments. b. Below average - Requires more than the average amount of time to complete work assignments. c. Average - Requires a normal amount of time to complete tasks. d. Above average - Often completes work assignments in less time than normal. e. Exceptional - Completes job assignments much quicker than normal.
E-1 E-2 E-3 E-4 E-5 E-6	 6. In general, the amount of supervision required is a. Constant - Requires continual supervision to perform satisfactorily. b. Excessive - Requires more than average supervision to perform satisfactorily. c. Average - Requires a normal amount of supervision. d. Minimal - Requires supervision occasionally. e. Infrequent - Rarely requires supervision ,
E-1 E-2 E-3 E-4 E-5 E-6	 In general, the ability to respond to unusual work demands is Unsatisfactory - Individual is unable to adapt his skills and knowledge to perform an unfamiliar job task. Below average - Individual is often unable to respond in a situation in which he may have to do an unusual task. Average - Individual is generally able to complete an unusual job task. Above average - Individual is almost always able to complete an unfamiliar job task, and the work quality is good. Exceptional - Individual is always able to respond and the work quality is excellent.

E-1 E-2 E-3	8. In general, my subordinate's job attitudes area. Negative - Attitude is consistently negative
E-4 E-5 E-6	 b. Neutral - Attitude seems to be neither negative nor positive.
	c. Positive - Attitude is consistently positive.
E-1 E-2 E-3	In general, my subordinate's progress with their PQS requirements are
E-4 E-5 E-6	 a. Unsatisfactory - Shows no interest in completing PQS requirements.
	 b. Average - Is currently working towards completing PQS requirements.
	 c. Exceptional - Completed PQS requirements in unusually short amount of time.
E-1 E-2 E-3	Would you recommend your subordinates for advancement?
E-4 E-5 E-6	 a. Not recommended - Would not recommend for advancement.
	 b. Progressing - Showing satisfactory progress toward advancement.
	 Recommended - Would recommend for advancement.
E-1 E-2 E-3	11. Do you think your subordinates take pride in their work?
E-4 E-5 E-6	a. yes b. no
E-1 E-2 E-3	12. Do you consider your subordinates committed to
	the Navy?
E-4 E-5 E-6	a. yes b. no
E-1 E-2 E-3	13. Do you provide your subordinates with feedback about their job performance?
E-4 E-5 E-6	a. yes b. no

Short Answer Section

___ E-4 ___ E-5 ___ E-6

E-1 E-2 E-3 14. Did the training your subordinates received provide them with the background necessary to perform the job?

a. yes

b. no

15. If you answered no to #14, please identify the areas in which the individual's training was inadequate.

E-1 -

E-2 -

E-3 -

E-4 -

E-5 -

E-6 -

16. Are there any suggestions you would make to improve the performance or qualifications of the individuals you supervise?

Additional Information 18. How many individuals do you supervise in each of the following paygrades? E-1 -E-2 -E-3 -E-4 -E-5 -E-6 -19. Approximately, how long have you been supervising the personnel you have just evaluated? E-1 -E-2 -E-3 -E-4 -

E-5 -

E-6 -

OPERATIONS SPECIALIST (OS) TRAINING ATTITUDE SURVEY

1991

"Your opinions and attitudes are important to me!"

Chief of Naval Personnel Vice Admiral J. M. Boorda

Navy Personnel Research and Development Center San Diego, California 92152-6800

PRIVACY ACT STATEMENT

Public Law 93-579, called the Privacy Act of 1974, requires that you be informed of the purposes and uses to be made of the information collected. Navy Personnel Research and Development Center may collect the information requested in the Operations Specialist (OS) Training Attitude Survey, 1991, under the authority of 5 United States Code 301.

The information collected in the questionnaire will be used to evaluate existing and proposed Navy personnel policies and procedures.

Providing information in this form is voluntary. Failure to respond to any particular questions will not result in any penalty to the respondent except the possible lack of representation of your views in the final results and outcomes.

Report Control Symbol 1514-6 has been assigned to this survey.



OPERATIONS SPECIALIST (OS) TRAINING ATTITUDE SURVEY

Instructions

The purpose of this survey is to gather information about training attitudes within the OS rating. The first section deals with general attitudes and the second section addresses attitudes about specific courses you have taken. Please read each item carefully. Indicate your degree of agreement or disagreement with each item by placing the number that expresses your opinion in the space provided. Your opinions are important and there are no right or wrong answers. Your participation will help ensure that personnel in the OS rating are trained at the appropriate time in their career, and have the necessary skills and knowledge to perform their jobs. The information you provide will be kept confidential. To avoid repetition, begin each phrase with: "To what extent do I agree that ..."

Example

Strongly Disagree 1	Somewhat Disagree 2	Undecided 3	Somewhat Agree 4	Strongly Agree 5
"To what ext	ent do I agree tha	ıt"		
3 5	. The federal de	eficit is a serious	problem.	

If you have questions, you may contact:

April Moranville (619) 553-7687 (A/V 553-7687) or EWC(SW) Mike Pfaff (619) 553-7684 (A/V 553-7684)

Please complete the survey within one week and return it in the enclosed envelope to:

Navy Personnel Research and Development Center (Code 142) San Diego, CA 92152-6800

Thank you for your time and effort!

OPERATIONS SPECIALIST (OS) TRAINING ATTITUDE SURVEY

Section I

Strongly Disagree 1		Somewhat Disagree 2	Undecided 3	Somewhat Agree 4	Strongly Agree 5
"To wha	at ex	tent do I agree tha	t"		
-	1.	I intend to comp	lete my enlistme	nt.	
	2.	My chances for a	advancement ar	e good.	
	3.	The OSs I work	with encourage	each other to giv	e their best effor
	4.	I have received e	enough formal tr	aining opportuni	ties.
	5.	I feel a sense of	achievement in i	my job.	
	6.	I have adequate	opportunity to fu	ully use my abiliti	es.
	7.	I feel positive about my future with this Command.			i.
	8.	The formal training I have received provides me with the skills I reto perform my job.			
	9.	I intend to make a career out of the Navy.			
	10.	I am satisfied wit	h the progress I	have made in th	e Navy up to no
	11.	I think of the Nav	y's problems as	my problems.	
 	12.	I feel that the abi my formal trainin		y job has increa	sed as a result o
	13.	I think that I was	placed in the rig	tht rating in the N	lavy.
	14.	It is important to possible.	me to advance	through my ratin	g as quickly as
	15.	I feel a great sen	se of personal s	atisfaction when	I do my job well
	16.	The OSs I work	with maintain hig	h standards of p	erformance.
	17.	My supervisor er	ncourages me to	receive availabl	e formal training

	mewhat Strongly Agree Agree 4 5
--	---------------------------------------

"10 W	nat ex	tent do I agree that"
	18.	I would leave the Navy if I had the chance.
	19.	The on the job training that I receive is adequate.
	20.	I would like to gain more responsibility.
	21.	I feel that I am getting enough feedback about my job performance.
	22.	My work group is able to respond to unusual work demands when necessary.
	23.	Reenlisting is important to me.
	24.	My supervisor is aware of my formal training needs.
	25.	I get a feeling of accomplishment from this job.
	26.	I find that my values and the Navy's values are very similar.
	27.	The promotion system is adequate.
	28.	I take pride in my work.
· 	29.	I am learning skills that will be useful later in my enlistment.
	30.	I intend to reenlist after finishing my current enlistment.
·	31.	The formal training I have received provides good chances for getting ahead.
	32.	My work center can meet day to day mission requirements well.
	33 .	This command is generally quick to use existing formal training.
	34.	I am pleased that I am in the OS rating.
	35.	I am willing to put forth extra effort to help the Navy.
	36.	I have confidence in the other OSs that I work with.
	37.	I am satisfied with the team training I have received.

Section II

In this section, you are asked to provide information about specific courses you have taken. Please list the last five formal OS courses you have taken, e.g., OS -A School, and then rate how well this course prepared you to perform your job. Place the number of the statement that corresponds to how you feel next to each course using the following scale:

- 1. Unsatisfactory Course definitely did not prepare me to perform my job.
- 2. Satisfactory Course adequately prepared me to perform my job.
- 3. Highly satisfactory Course completely prepared me to perform my job.

List the last five formal OS courses you have taken.	Rate each course.
1.	
2.	
3.	
4.	
5.	

Appendix E Operations Specialist (OS) Skills Profile

Operations Specialist (OS) Skills Profile

Operations Specialist Class A1 CIN: J-221-0011 CDP: 6540		Operations Specialist Class A1	
		P: 6540	Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
1.0	1.0	.010	Compute bearings (true and relative) and target angles.
2.0	1.0	.023	Plot surface contacts on a maneuvering board and determine direction of relative motion, speed of relative motion and course and speed.
3.0	1.0	.023	Determine on a maneuvering board the closest point of approach (bearing, range, and time) and revised closest point of approach (bearing, range, and time).
4.0	1.0	.016	Determine on a maneuvering board apparent wind and true wind when relative wind is given.
5.0	1.0	.016	Plot various formations and screens on a maneuvering board or formation diagram II, using ATP 1(C), Vol. I and proper symbology.
6.0	1.0	.023	DTMD on a M/B a contact's position along track.
7.0	2.0	.016	Energize and deenergize the surface search radar repeater/indicator.
8.0	2.0	.016	Identify radar system casualties.
9.0	2.0	.016	Identify weather formations and natural radar contacts while performing the duties of a radar operator.
10.0	2.0	.023	Using a surface search radar repeater, track and report positions of surface contacts and display target designations.
11.0	2.0	.016	Determine the closest point of approach (CPA) of a surface contact using the surface search radar repeater.
12.0	2.0	.016	Energize and deenergize the air search radar repeater/indicator.
13.0	2.0	.023	Using an air search radar repeater, track and report positions of air contacts and display target designations.
14.0	2.0	.010	Determine bearing and range between two air contacts using the air search repeater.
15.0	3.0	.023	Safeguard classified information and material against loss, unauthorized disclosure and inadvert ent destruction.
16.0	3.0	.016	Using the phonetic alphabet, send, receive, and relay messages utilizing internal communication's methods and equipment.
17.0	4.0	.010	Use basic Combat Information Center publications and directives.
18.0	4.0	.010	Maintain a DRT log while underway.
19.0	5.0	.023	Prepare DRT for surface tracking during underway steaming.
20.0	5.0	.023	Plot ownship's track and ownship's contact on DRT and determine and display contact's courses speeds.
21.0	5.0	.016	Plot ESM bearings and jamming data on DRT.
22.0	5.0	.016	Maintain ownship's track and DRT display during actual or simulated shipboard casualty to DRT using a DR method.
23.0	5.0	.023	Display man-overboard data on DRT.

Operations Specialist Class A1 CIN: J-221-0011 CDP: 6540			Skills Profile
24.0	5.0	.023	Plot reported datum(s) and MAD contacts on the DRT.
25.0	5.0	.023	Determine MAD contact's courses and speeds on the DRT.
26.0	6.0	.016	Plot surface/subsurface contacts on a surface summary plot and record amplifying information for each.
27.0	6.0	.016	Plot an AAW formation and ownship's air contacts on a vertical plot.
28.0	6.0	.023	Plot air contacts on a vertical plot using a cartesian coordinate grid and proper symbology.
29.0	6.0	.016	Display air contact's amplifying information, including course and speed on a vertical plot using a cartesian coordinate grid.
30.0	7.0	.016	Encode/decode administrative/tactical signals using Allied Maritime Tactical Signal Book ATP-1 (C), Vol.
31.0	8.0	.023	Prepare a navigation table to conduct coastal navigation operation.
32.0	9.0	.016	Identify IFF/SIF responses.
33.0	9.0	.010	Identify NTDS symbology and special points represented by NTDS symbology.
34.0	7.0	.016	Encode and decode call signs.
35.0	7.0	.023	Operate radio-telephone remote control and monitoring equipment.
36.0	7.0	.016	Maintain a communication's watch on a radio-telephone set, while observing basic transmission security rules.
37.0	8.0	.023	Plot coastal navigation fixes.
38.0	8.0	.016	Plot intended track and DR position along intended track on a coastal navigation chart.
39.0	8.0	.016	Plot estimated position (EPDR) on a navigation chart.
40.0	8.0	.016	Plot an operations area (OPAREA) on a navigation chart.
41.0	8.0	.016	Determine course and speed made good on a navigation chart.
42.0	8.0	.016	Determine set and drift on a navigation chart.
43.0	9.0	.023	Detect video on the PPI and enter an air target symbol.
44.0	9.0	.023	Detect video on the PPI and enter a late detect symbol.
45.0	9.0	.016	Detect video on the PPI and enter split symbology.
46.0	9.0	.023	Position Correct (POS COR) track's symbology
47.0	9.0	.010	Reposition a track to its associated video.
48.0	9.0	.010	Interchange position and tracking data symbols for two (2) tracks.
49.0	9.0	.010	Delete a symbol (DROP TRACK).
50.0	9.0	.010	Categorize a track as air, surface, or subsurface.
51.0	9.0	.010	Identify a track as hostile, friendly, or unknown.
52.0	9.0	.010	Amplify identification (ID AMP) for air and surface targets.

Operations Specialist Class A1 CIN: J-221-0011 CDP: 6540			Skills Profile
53.0	9.0	.023	Detect video on the PPI and enter a surface target symbol.
54.0	9.0	.016	Enter a Surface Launched Cruise Missile (SLCM) symbol.
55.0	9.0	.010	Enter an Emergency Hazard Point (EM/HZ PT) symbol.
56.0	9.0	.010	Enter a Non-Real Time Track symbol.
57.0	9.0	.010	Enter a reference point symbol.
58.0	9.0	.010	Displayed data in the air, surface/subsurface mode request.
59.0	9.0	.016	In the surface/subsurface mode, compute Closest Point of Approach (CPA).
60.0	9.0	.013	In the surface/subsurface mode, report trial maneuver geometry.
	Total	1.000000	

	Amphibious Plann	ing	Effective Date: 85/05/30
CIN: K-2G-0041 CDP: 9250, 234Y Old CIN: A-2G-0041			Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
1.0	1.2	.020	Describe the types of sea mines in the Soviet Inventory.
2.0	1.3	.020	List the delivery platforms used to deliver Soviet mines.
3.0	1.4	.020	Describe the types of minefields used by the Soviets.
4.0	1.7	.020	List the primary types for Soviet Radio Electronic Combat (REC).
5.0	1.11	.020	Describe the major strengths and weaknesses associated with Soviet REC.
6.0	1.12	.020	List the characteristics of Soviet chemical agents.
7.0	1.13	.020	Describe the vulnerabilities of U.S. amphibious tactics to chemical attacks.
8.0	1.14 1.15	.020	Describe the strengths and weaknesses of U.S. and Soviet chemical warfare postures.
9.0	1.16	.020	Describe the types of fighter bomber aircraft attached to Soviet Tactical Aviation (TACAIR).
10.0	1.17	.020	Describe the support provided to TACAIR by candid aircraft.
11.0	1.18	.020	Describe the characteristics of Soviet Hip and Hind Helicopters.
12.0	1.19	.020	Describe the tactics associated with the employment of TACAIR.
13.0	1.21	.020	Describe the organization of the Soviet Naval Infantry.
14.0	1.22	.020	Describe the tactics and equipment utilized by the Soviet Naval Infantry.
15.0	1.23	.020	Describe the Soviet Naval Amphibious Ships and Landing Craft which could be used in an amphibious assault.
16.0	1.24	.020	Describe the organization of the Soviet Airborne Forces.
17.0	1.25	.020	Describe the tactics and equipment utilized by the Soviet Airborne Forces.
18.0	1.26	.020	Describe the Soviet Motorized Rifle Division's (MRD's) organization for anti-amphibious landing defense.
19.0	1.29	.020	Describe the Soviet weapon systems which are deployed in their anti-landing defense.
20.0	1.31	.020	Describe strengths and weaknesses of the Soviet anti-landing defense.
21.0	1.32	.020	Describe the five steps involved in preparing the commander's estimate of the situation.
22.0	1.33	.020	Describe the nine steps involved in preparing the operational plan.
23.0	1.34	.020	Analyze an Amphibious Task Force mission statement.
24.0	1.35	.020	Write a mission oriented evaluation of the environmental factors which influence the outcome of an operation.
25.0	1.36	.020	Brief the potential landing sites suitable for an Amphibious Landing.
26.0	1.37	.020	Recommend Landing areas based on landing force objectives.
27.0	1.38	.020	Write an evaluation of relative combat power affecting amphibious operations.

Amphibious Planning CIN: K-2G-0041 CDP: 9250, 234Y Old CIN: A-2G-0041			Effective Date: 85/05/30 Skills Profile
28.0	1.41- 1.45	.020	Assess enemy capabilities affecting an amphibious operation.
29.0	1.46	.020	Analyze own courses of action (OCA), taking into consideration enemy capabilities (ECA).
30.0	1.47- 1.52	.020	Determine primary course of action by testing all OCAs with respect to ECAs.
31.0	1.53	.020	Select a D-day and H-hour for an amphibious operation.
32.0	1.54- 1.56	.020	Develop a concept of operations for an amphibious operation.
33.0	1.57	.020	Organize forces into a Task Organization.
34.0	1.58- 1.61	.020	Write the basic five paragraph OPORDER for an amphibious operation.
35.0	1.62- 1.64	.020	Describe annexes, enclosures, tabs, and addendums which have relevance in writing an amphibious OPORDER.
36.0	1.63	.020	Describe the purpose and method of using General Operational messages in planning an amphibious operation.
37.0	1.65	.005	Prepare a Landing Craft Availability Table.
38.0	1.66	.005	Prepare a Transport Area Diagram.
39.0	1.67	.005	Prepare a Consolidated Landing and Approach Plan.
40.0	1.68	.005	Prepare an Assault Wave Diagram.
41.1	1.69	.13	Present a briefing for an amphibious operation and include coverage of the following: Commander's Estimate, Basic Divisions, and Annex Romeo.
42.0	1.70	.13	Write the basic five paragraph OPORDER for an amphibious operation and prepare ship-to-shi movement documents.
	Total	1.000000	

Mine Countermeasures Helicopter Control CIN: J-221-0316 CDP: 408R			Skills Profile
1.0	1.1, 1.16	.040	Set up radar for a MCM mission.
2.0	1.2	.060	Identify the requirements for acceptance of aircraft.
3.0	1.3	.050	Identify the three (3) types of air control.
4.0	1.4	.050	Identify the acronym "SHIPPLOW."
5.0	1.5	.060	Identify the minimums for MCM helicopters.
6.0	1.6	.060	Use the procedures for reporting unidentified air and surface contacts.
7.0	1.7	.020	Properly decode transmitted kilo and mike reports.
8.0	1.8	.030	Use lost communications procedures for an aircraft.
9.0	1.9	.030	Identify the procedures for ordering a helicopter MCM sweep configuration.
10.0	1.10	.020	Identify the three phases of a search and rescue.
11.0	1.11	.060	Use emergency procedures for handling a MCM helicopter emergency.
12.0	1.12	.030	Identify the twelve (12) items of information that should be provided during an emergency.
13.0	1.13	.030	Identify the six (6) items of information that should be provided to ditching air crew.
14.0	1.14	.020	Identify control stations manned during MCM operations.
15.0	1.15	.020	Set up a mine field overlay.
16.0	1.17	.020	Use radio/telephone (R/T) communications procedures during MCM operations.
17.0	1.18	.020	Operate the 15F6 pilot console providing synthetic video and communications to the MCM controller.
18.0	1.19	.030	Demonstrate a knowledge of basic mine warfare terms.
19.0	1.20	.040	Identify how MCM may be accomplished.
20.0	1.21	.040	Identify the basic mine types and their variations.
21.0	1.22	.030	Identify the limitations of the MH53E, RH53D, and CH53A/D.
22.0	1.23	.030	Identify communications, navigation, and safety equipment installed onboard MCM aircraft.
23.0	1.24	.030	Identify the three (3) readiness conditions of the MH53E and RH53D aircraft.
24.0	1.25	.030	Identify MCM equipment with the mine type it is used against.
25.0	1.26	.030	Identify methods of navigation for MCM operations.
26.0	1.27	.030	Identify the three (3) subsystems of RAYDIST.
27.0	1.28	.030	Identify the capabilities and limitations of radar usage for MCM operations.
28.0	1.29	.030	Identify the components and functions of the AIMS system.
29.0	1.30	.030	Identify switches and buttons on the UPA-59/59A.
	Total	1.000000	

Antisubmarine Controller Non-NTDS Qualification

CIN: J-221-0321 CDP: 5697, 402W, 4112

Skills Profile

CIN: J-221-0321 CDP: 5697, 402W, 4112			Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
1.0	1.0, 5.11	.019	Conduct an ASW aircraft check-in.
2.0	1.0, 5.11	.048	Control an ASW aircraft.
3.0	1.0, 5.11	.019	Conduct an ASW aircraft check-out.
4.0	1.1	.010	State the three (3) requirements for acceptance of aircraft control.
5.0	1.2	.019	Explain the acronym PIPLOW.
6.0	1.3	.010	Describe the nine (9) elements of a pilot's report.
7.0	1.4	.010	Describe the four (4) Air Navigation Aids.
8.0	1.5	.019	Demonstrate a knowledge of lost Communications Procedures.
9.0	1.6	.019	Describe the four (4) types of Air Control.
10.0	1.7	.010	Interpret an aviation weather report.
11.0	1.10	.010	Compute an aircraft's turn diameter.
12.0	1.11	.019	Report unidentified air contacts to assigned aircraft.
13.0	1.12	.019	Describe the four (4) types of aircraft emergencies.
14.0	1.13	.019	Use LINT procedures for handling an aircraft emergency.
15.0	1.14	.019	Conduct Lost Plane Homing.
16.0	1.15	.019	State the six (6) items of information to be provided to a ditching aircrew.
17.0	1.16	.019	Set-up a radar repeater with off-set capabilities for the conduct of ASW Air Control.
18.0	1.16	.010	Operate a radar repeater with off-set capabilities for the conduct of ASW Air control.
19.0	2.0, 5.2	.019	Launch an ASW helicopter under VMC/IMC.
20.0	2.0, 5.2	.019	Recover an ASW helicopter under VMC/IMC.
21.0	2.1	.010	Describe the three (3) levels of helicopter launches.
22.0	2.2	.010	Describe the three (3) levels of helicopter recoveries.
23.0	2.3	.010	Describe the criteria requiring an ELVA.
24.0	2.4	.048	Conduct an ELVA.
25.0	3.0	.019	Conduct an ASW search with a single aircraft utilizing air plan 3/5.
26.0	3.0	.019	Conduct an ASW search with dual aircraft utilizing air plan 44/48.
27.0	3.1	.010	Describe airborne visual/optical sensors.
28.0	3.2	.010	Describe ASW airborne search radars.

Antisubmarine Controller Non-NTDS Qualification

CIN: J-221-0321 CDP: 5697, 402W, 4112

Skills Profile

Number	Objective	Weight	Skill or Knowledge Item
29.0	3.3	.010	Describe ESM in the conduct of ASW.
30.0	3.4, 3.5	.010	Demonstrate a knowledge of LOFAR.
31.0	3.6	.010	Demonstrate a knowledge of DIFAR.
32.0	3.7	.010	Demonstrate a knowledge of sonobuoys.
33.0	3.8	.010	Describe airborne sonar.
34.0	3.9	.010	Demonstrate a knowledge of Magnetic Anamoly Detection (MAD).
35.0	3.11	.010	Describe the five (5) fixed-wing ASW search plans.
36.0	3.12	.010	Describe the five (5) passive sonobuoy airplanes.
37.0	3.13	.010	Demonstrate a knowledge of the ten (10) helicopter air plans.
38.0	3.15	.048	Conduct automatic helicopter dipping.
39.0	3.16	.010	Describe the two (2) radar airplanes.
40.0	3.17- 3.21	.010	Demonstrate a knowledge of underwater acoustics.
41.0	3.22	.010	Recognize acoustic support products.
42.0	4.0	.048	Locate a target submarine using two (2) ASW aircraft.
43.0	4.0	.048	Track a target submarine for ten (10) minutes using two (2) ASW aircraft.
44.0	4.0	.019	Report a target submarine's position every two (2) minutes using two (2) ASW aircraft.
45.0	4.1	.010	Describe the four (4) submarine classifications.
46.0	4.2	.010	Demonstrate a knowledge of TRITAC/DITAC sonobuoy patterns.
47.0	4.3	.010	Describe the four (4) active sonobuoy airplanes.
48.0	4.4	.010	Demonstrate a knowledge of the twelve (12) MAD airplanes.
49.0	5.3- 5.5	.010	Demonstrate a knowledge of Federal/Navy Air Regulations.
50.0	5.6, 5.7	.019	Operate an AN/UPA-59/59A Decoder.
51.0	6.0, 6.2, 6.6	.050	Conduct an ASW airborne attack on a target submarine using two (2) ASW aircraft.
52.0	6.1	.010	Describe airborne ASW weapons.
53.0	6.3	.010	Demonstrate a knowledge of the types of airborne attacks.
54.0	6.4	.010	Recognize the seven (7) attack situations.
55.0	6.5	.010	Demonstrate a knowledge of Post Attack Procedures.
56.0	7.0- 7.2	.048	Conduct an ASW airborne attack on a target submarine utilizing the NC-2/PT-512 plotting table.
57.0	5.0- 8.2	.019	Construct a geographic display of ship's theater of operations for ASW Air Control.
	Total	1.000000	

Antisubmarine Air Controller NTDS Qualification

CIN: J-221-0323 CDP: 4476, 415D

Skills Profile

Number	Objective	Weight	Skill or Knowledge Item
1.0	1.0, 5.11	.019	Conduct an ASW aircraft check-in.
2.0	1.0, 5.11	.048	Control an ASW aircraft.
3.0	1.0, 5.11	.019	Conduct an ASW aircraft check-out.
4.0	1.1	.010	State the three (3) requirements for acceptance of aircraft control.
5.0	1.2	.019	Explain the acronym PIPLOW.
6.0	1.3	.010	Describe the nine (9) elements of a Pilot's report.
7.0	1.4	.010	Describe the four (4) Air Navigation Aids.
8.0	1.5	.019	Demonstrate a knowledge of Lost Communications Procedures.
9.0	1.6	.019	Describe the four (4) types of Air Control.
10.0	1.7	.010	Interpret an aviation weather report.
11.0	1.10	.010	Compute an aircraft's turn diameter.
12.0	1.11	.019	Report unidentified air contacts to assigned aircraft.
13.0	1.12	.019	Describe the four (4) types of aircraft emergencies.
14.0	1.13	.019	Use LINT procedures for handling an aircraft emergency.
15.0	1.14	.019	Conduct Lost Plane Homing.
16.0	1.15	.019	State the six (6) items of information to be provided to a ditching aircrew.
17.0	1.16	.019	Set-up an NTDS console for the conduct of ASW Air Control.
18.0	1.16	.010	Operate an NTDS console for the conduct of ASW Air Control.
19.0	2.0, 5.2	.019	Launch an ASW helicopter under VMC/IMC.
20.0	2.0, 5.2	.019	Recover an ASW helicopter under VMC/IMC.
21.0	2.1	.010	Describe the three (3) levels of helicopter launches.
22.0	2.2	.010	Describe the three (3) levels of helicopter recoveries.
23.0	2.3	.010	Describe the criteria requiring an ELVA.
24.0	2.4	.048	Conduct an ELVA.
25.0	3.0	.019	Conduct an ASW search with a single aircraft utilizing airplan 3/5.
26.0	3.0	.019	Conduct an ASW search with dual aircraft utilizing airplan 44/48.
27.0	3.1	.010	Describe airborne visual/optical sensors.
28.0	3.2	.010	Describe ASW airborne search radars.

Antisubmarine Air Controller NTDS Qualification CIN: J-221-0323 CDP: 4476, 415D Skills Profile Number Objective Weight Skill or Knowledge Item .010 29.0 3.3 Describe ESM in the conduct of ASW. 30.0 3.4, .010 Demonstrate a knowledge of LOFAR. 3.5 31.0 .010 3.6 Demonstrate a knowledge of DIFAR. 32.0 3.7 .010 Demonstrate a knowledge of sonobuoys. 33.0 3.8 .010 Describe airborne sonar. .010 34.0 3.9 Demonstrate a knowledge of Magnetic Anomaly Detection (MAD). 3.11 35.0 .010 Describe the five (5) fixed-wing ASW search plans. 36.0 3.12 .010 Describe the five (5) passive sonobuoy airplanes. 37.0 3.13 .010 Demonstrate a knowledge of the ten (10) helicopter airplanes. 38.0 3.15 .048 Conduct automatic helicopter dipping. 39.0 3.16 .010 Describe the two (2) radar airplanes. 3.17-.010 40.0 Demonstrate a knowledge of underwater acoustics. 3.21 41.0 3.22 .010 Recognize acoustic support products. .048 42.0 4.0 Locate a target submarine using two (2) ASW aircraft. 43.0 4.0 .048 Track a target submarine for ten (10) minutes using two (2) ASW aircraft. 44.0 4.0 .019 Report a target submarine's position every two (2) minutes using two (2) ASW aircraft. 45.0 4.1 .010 Describe the four (4) submarine classifications. 46.0 4.2 .010 Demonstrate a knowledge of TRITAC/DITAC sonobuoy patterns. 47.0 4.3 .010 Describe the four (4) active sonobuoy airplanes. 48.0 4.4 .010 Demonstrate a knowledge of the twelve (12) MAD airplanes. 49.0 5.3-.010 Demonstrate a knowledge of Federal/Navy Air Regulations. 5.5 Operate a AN/UPA-59/59A Decoder. 50.0 5.6, .019 5.7 51.0 .050 6.0, Conduct an ASW airborne attack on a target submarine using two (2) ASW aircraft. 6.2, 6.6 52.0 .010 Describe airborne ASW weapons. 6.1 53.0 6.3 .010 Demonstrate a knowledge of the types of airborne attacks. .010 54.0 6.4 Recognize the seven (7) attack situations. Demonstrate a knowledge of Post Attack Procedures. 55.0 6.5 .010

Antisubmarine Air Controller NTDS Qualification CIN: J-221-0323 CDP: 4476, 415D			Skills Profile
56.0	7.0- 7.2	.048	Conduct an ASW airborne attack on a target submarine utilizing the NC-2/PT-512 plotting table.
57.0	8.0- 8.2	.019	Construct a geographic display of ship's theater of operations for ASW Air Control.
	Total	1.000000	

Air Intercept Controller Conventional Qualification

CIN: K-221-0007 CDP: 5205, 2079

Skills Profile

CIN: K-221-0007 CDP: 5205, 2079			Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
1.0	1.1	.024	Describe the carrier control area in terms of size, control responsibility, and requirements.
2.0	1.2	.003	State VMC and IMC minimums.
3.0	1.3	.003	Explain how to obtain a weather report.
4.0	1.4	.003	Read a weather report.
5.0	1.5	.003	Describe how air navigation aids are used during an intercept.
6.0	1.6	.003	Relay pilot weather reports and flight conditions.
7.0	1.7	.009	Assist in aircraft and aircrew emergencies.
8.0	1.8	.009	Assist in search and rescue.
9.0	1.9	.004	Describe basic threat tactics.
10.0	1.10	.004	Describe basic threat formations.
11.0	1.11	.017	State the meaning of prowords used in an intercept.
12.0	1.12	.017	Explain the terms used by aircrews during air combat maneuvering.
13.0	1.13	.017	Explain the AlCs responsibilities during air combat maneuvering.
14.0	1.14	.077	Compute nearest collision intercept geometry.
15.0	1.15	.009	Compute nearest collision intercept conversion geometry.
16.0	1.16	.009	Compute tanker join-up geometry.
17.0	1.17	,009	Compute attack-reattack/catseye geometry.
18.0	1.18	.061	Compute the track and ground speed of an air target.
19.0	1.19	.060	Detect a jink.
20.0	1.20	.061	Track a bogey and combat air patrol concurrently.
21.0	1.21	.061	Detect target splits.
22.0	1.22	.060	Compute aircraft headings required to maintain a specific track.
23.0	1.23	.061	Conduct air control operations in a training environment.
24.0	1.24	.055	Respond to judy and lost contact calls.
25.0	1.25	.060	Provide assistance to aircrews during air combat maneuvering.
26.0	1.26	.061	Transmit appropriate stranger information to the aircrew.
27.0	1.27	.061	Utilize proper communications procedures during an intercept.
28.0	1.28	.061	Initiate check-in procedures with aircraft.
29.0	2.1	.024	State the type of information contained in the airplane which are of most interest to the AIC.
30.0	2.2	.003	State the restrictions that apply to various airspace categories.
31.0	2.3	.003	State the purpose of the operational navigation chart.

Air Intercept Controller Conventional Qualification CIN: K-221-0007 CDP: 5205, 2079			
			Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
32.0	2.4	.003	Describe the contents of various flight information publications.
33.0	2.5	.009	Describe the peacetime Search and Rescue organization.
34.0	2.6	.009	Define command responsibilities during peacetime SAR missions.
35.0	2.7	.009	Describe aircraft procedures for a combat SAR mission.
36.0	2.8	.009	Describe aircrew identification procedures for a combat SAR.
37.0	2.9	.004	Describe the primary and secondary methods of intercept control employed by Soviet block forces.
38.0	2.10	.004	Describe the primary and secondary methods of intercept control employed by U.S. forces.
39.0	2.11	.004	Describe the philosophy underlying the method of intercept control employed by Soviet block forces.
40.0	2.12	.009	Describe Soviet fighter tactics and U.S. countertactics.
41.0	3.1	.004	Use IFF as an aid in identifying and tracking friendly aircraft.
42.0	3.2	.004	Recognize emergency IFF returns.
43.0	3.3	.004	State the purpose of an IFF system.
44.0	3.4	.004	State the functions of the major components of AIMS MK-12 IFF.
45.0	3.5	.004	Explain the use of each of the modes in the MK-12 IFF system.
46.0	3.6	.004	Locate the primary controls and indicators of the U A-59/UPA-59A.
47.0	3.7	.004	Describe each of the display presentations when all decoder group controls are properly set up.
	Total	1.000000	

-			
Skills Profile	7, 4606	21-0027 CDP: 937	CIN: K-2
Skill or Knowledge Item	Weight	Objective	Number
Use IFF as an aid in identifying and tracking friendly aircraft.	.04	1.5	1.0
Recognize emergency IFF returns.	.04	1.6	2.0
Determine the type of information contained in the airplane which is of most interest to the AlC	.03	1.8	3.0
Use air navigation aids during an intercept.	.04	1.15	4.0
Relay pilot weather reports and light conditions.	.03	1.16	5.0
Assist in aircraft and aircrew emergencies.	.04	1.17	6.0
Assist in search and rescue.,	.03	1.18	7.0
Transmit threat formations.	.04	1.28	8.0
Use proper communications procedures during an intercept.	.04	1.29	9.0
Compute intercept geometry.	.04	1.32	10.0
Respond to judy and lost contact calls.	.04	1.37	11.0
Provide assistance to aircrews during all combat maneuvering.	.04	1.38	12.0
Transmit appropriate stranger information to the aircrew.	.04	1.39	13.0
Initiate check-in procedures with aircraft.	.03	1.41	14.0
Compute the track and ground speed of an air target.	.04	1.42	15.0
Detect a jink.	.04	1.43	16.0
Track a bogey and combat air patrol concurrently.	.03	1.44	17.0
Detect target splits.	.05	1.45	18.0
Compute aircraft headings required to maintain a specific track.	.04	1.46	19.0
Set up a NTDS console in the AC mode to control aircraft.	.04	1.47	20.0
Build two ownship weapon figliter aircraft symbols.	.04	1.48	21.0
Track a bogey and combat air patrol concurrently using Link 4A.	.05	1.49	22.0
Update the aircrew of the F-4, F-14, F-18 intercept via data link.	.05	1.50	23.0
Conduct uplink operations.	.05	1.51	24.0
Conduct downlink operations.	.05	1.52	25.0

Air Intercept Controller Refresher			Effective Date: 85/11/14
CIN: K-2:	21-0080 CDP: 868	6, 101E	Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
1.0	4.1	.013	State the carrier control area in terms of size control responsibility and requirements.
2.0	5.1	.013	State VMC and IMC minimums.
3.0	5.2	.005	DETERMINE proper channels used to obtain a weather report.
4.0	5.3	.001	INTERCEPT a weather report.
5.0	5.4	.001	STATE how air navigation aids are used during an intercept.
6.0	5.5	.013	RELAY pilots weather reports and flight conditions.
7.0	6.1	.018	STATE procedures used in aircraft and aircrew emergencies.
8.0	6.27	.011	STATE procedures used in search and rescue evolutions.
9.0	9.1	.022	INTERCEPT basic threat tactics.
10.0	10.1	.047	USE prowords required to conduct an intercept.
11.0	10.1	.047	DEFINE intercept terms used by aircrews during air combat maneuvering phase of the intercept.
12.0	10.3	.013	DEMONSTRATE the AICs the responsibilities during air combat maneuvering.
13.0	11.1	.147	COMPUTE nearest collision intercept geometry.
14.0	11.2	.018	COMPUTE nearest collision intercept conversion geometry.
15.0	11.3	.008	COMPUTE tanker join-up geometry.
16.0	11.4	.016	COMPUTE attack-reattack/catseye geometry.
17.0	14.2	.027	COMPUTE the track and ground speed of an air target.
18.0	14.6	.008	DETECT a targets jink.
19.0	14.3	.022	TRACK a bogey and Combat Air Patrol concurrently.
20.0	15.2	.011	DETECT target splits.
21.0	15.2	0.00	COMPUTE aircraft headings required to maintain a specific track.
22.0	15.2	.027	CONDUCT air control operations in a training environment.
23.0	15.3	.016	RESPOND to judy and lost contact calls.
24.0	15.3	.047	PROVIDE assistance to aircrews during air combat maneuvering.
25.0	15.3	.147	TRANSMIT appropriate stranger information to the aircrew.
26.0	15.3	.043	UTILIZE proper communications during an intercept.
27.0	15.3	.013	INITIATE proper check-in procedures for aircraft.
28.0	4.1	.014	USE the type of information contained in the air plan which are of most interest to the AIC.
29.0	5.1	.027	STATE the restrictions that apply various airspace categories.
30.0	5.1	.027	STATE the purpose of the operational navigation chart.
31.0	5.1	.008	USE various flight information publications.

CIN: K-221-0080 CDP: 8686, 101E			Effective Date: 85/11/14 Skills Profile	
Number	Objective	Weight	Skill or Knowledge Item	
32.0	6.1	.008	STATE peacetime search and rescue organization.	
33.0	6.1	.008	STATE command responsibilities during peacetime SAR missions.	
34.0	6.1	.013	STATE aircraft procedures for a combat SAR mission.	
35.0	9.1	.047	DETERMINE Soviet fighter tactics and U.S. counter tactics.	
36.0	3.1	.072	USE IFF as an aid in identifying and tracking friendly aircraft.	=
37.0	6.2	.022	RECOGNIZE Emergency IFF returns.	_
	Total	1.000000		-

Tomahawk W	/eapons Control Syste AN/SWG-2	em Operator	Effective Date: 89/07/20
CIN:	J-121-0494 CDP: 1	31P	Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
1.0	1.1- 1.2	.015	Demonstrate a knowledge of the TWCS.
2.0	1.3	.020	Demonstrate a knowledge of LCG&TCG TWCS functions.
3.0	1.4	.015	Demonstrate an understanding of TCG controls.
4.0	1.5 & 2.10	.015	Demonstrate MAP definition procedures.
5.0	1.6 & 2.11	.015	Demonstrate reset data file procedures.
6.0	1.7 & 2.12	.010	Demonstrate retrieve data file procedures.
7.0	1.8 & 2.13	.010	Demonstrate platform ID procedures.
8.0	1.9 & 2.14	.010	Demonstrate time input procedures.
9.0	2.1	.015	Demonstrate a knowledge of System/Station variables on TCG.
10.0	2.2- 2.3	.015	Demonstrate a knowledge of Link 11 parameters and filters.
11.0	2.4 & 2.5	.015	Demonstrate a knowledge of C&D parameters and filters.
12.0	2.6 & 2.7	.015	Demonstrate a knowledge of Comm's configuration and parameters.
13.0	2.8	.010	Demonstrate an understanding of setting system parameters.
14.0	2.9	.010	Set system variables.
15.0	3.1- 3.3	.015	Demonstrate a knowledge of database files.
16.0	3.4	.010	Access data on database files.
17.0	3.5	.010	Delete data on database files.
18.0	3.6	.015	Edit data in database files.
19.0	3.7	.015	Enter data into database files.
20.0	4.1- 4.3	.015	Demonstrate a knowledge of GEO calculations and conventions.
21.0	4.4	.010	Demonstrate calculation of LAT/LONG.
22.0	4.5	.015	Demonstrate calculation of Bearing and Range.
23.0	4.6	.015	Demonstrate route calculation.
24.0	5.1- 5.2	.020	Demonstrate a knowledge of Map overlay characteristics.

Tomahawk Weapons Control System Operator AN/SWG-2			Effective Date: 89/07/20
CIN: J	I-121-0494 CDP: 1	31P	Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
25.0	5.3	.025	Build a Map overlay.
26.0	5.4	.025	Edit a Map overlay.
27.0	6.1	.020	Demonstrate an understanding of system message transmission.
28.0	6.2- 6.4	.025	Demonstrate transmitting a message.
29.0	7.1	.010	Demonstrate an understanding of the Correlation process
30.0	7.2	.025	Demonstrate an understanding of Ambiguity Resolution.
31.0	7.3	.015	Access ambiguity data.
32.0	7.4	.015	Access correlation plot.
33.0	7.5	.015	Perform compare function.
34.0	7.6- 7.8	.025	Resolve ambiguities.
35.0	8.1- 8.2	.025	Demonstrate a knowledge of the Target file.
36.0	8.3- 8.4	.020	Enter a track into the Target file.
37.0	8.5	.010	Remove tracks from the Target file.
38.0	9.1- 9.2	.025	Demonstrate an understanding of an Anti-ship engagement.
39.0	9.3- 9.7	.030	Create an Anti-ship engagement.
40.0	9.8	.020	Identify an avoidance track.
41.0	10.1	.025	Demonstrate an understanding of Land Attack engagement.
42.0	10.2- 10.5	.030	Create a Land Attack engagement.
43.0	11.1	.020	Demonstrate an understanding of Engagement plans.
44.0	11.2- 11.4	.020	Send engagement plan orders.
45.0	13.1- 13.2	020	Demonstrate an understanding of the LCG.
46.0	13.3	.020	Demonstrate procedures for GET/STORE MISSILE ID DATA.
47.0	13.4	.025	Evaluate System Status.
48.0	13.5	.010	Demonstrate procedures for performing DDPS BIT.
49.0	13.6	.010	Demonstrate procedures for performing LCG RELOAD.

Tomahawk W	eapons Control Sys AN/SWG-2	tem Operator	Effective Date: 89/07/20
CIN: J-121-0494 CDP: 131P			Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
50.0	13.7	.010	Demonstrate OFFLINE PROCEDURES.
51.0	14.1- 14.2	.030	Process Launch engagements.
52.0	15.1	.030	Complete Launch Sequence.
53.0	16.1- 16.2	.025	Demonstrate a knowledge of Engagement controls, functions, and modifications.
54.0	17.1	.020	Understand Exercise Missile functions.
55.0	18.1	.015	Demonstrate an understanding of Data Extract functions.
56.0	18.2- 18.8	.010	Demonstrate Data Extract procedures.
57.0	19.1	.020	Perform Orderly Shutdown.
	Total	1.000000	

Operations Specialist Intermediate CIN: K-221-0071 CDP: 2626, 011D, 8857, 0598			Skills Profile
1.0	1.0	.10	Solve maneuvering board change of station problems.
2.0	1.0	.10	Solve maneuvering board avoiding course problems.
3.0	1.0	.11	Solve maneuvering board wind problems.
4.0	1.0	.10	Solve tactical maneuvering problems (Formations and Screens).
5.0	2.0	.05	Use AKAC 874, COMTHIRDFLT/COMSEVENTHFLTINST C2000.1, AKAC 130/132, AKAI 6, and EFFI's.
6.0	3.0	.20	Solve tactical problems utilizing Op-Plans, Op-Orders, publications, instructions, and notices.
7.0	5.0	.10	Draft in proper format a naval message for release.
8.0	6.0	.03	Draft in proper format a MOVREP for release.
9.0	6.0	.03	Draft in proper format a UNITREP for release.
10.0	6.0	.03	Draft in proper format a SKDCHG for release.
11.0	6.0	.03	Draft in proper format an OPREP-3 for release.
12.0	6.0	.03	Draft in proper format a OPAREA/SVCS request message for release.
13.0	6.0	.03	Draft in proper format an OPGEN for release.
14.0	6.0	.03	Draft in proper format a MIII report for release.
15.0	6.0	.03	Draft in proper format a RAINFORM message for release.
	Total	1.000000	

CIN: K-221-0334 CDP: 143L Number Objective Weight		<u></u> -	Skills Profile Skill or Knowledge Item	
		Weight		
1.0	1.0	.0830	Identify the operator control panels, switches, and indicators and their functions on the OJ 451/535 Display Console.	
2.0	1.2	.025	Recognize the symbology used in the CV/CVN Class CDS program.	
3.0	1.0	.025	Set up the OJ-451/535 Display Console so that it will operate in an assigned mode.	
4.0	1.1	.025	Interpret information displayed at various stations.	
5.0	1.10, 1.16, 1.18	.025	Detect, enter, and update new tracks.	
6.0	1.16, 1.17, 1.19	.012	Interrogate air and surface contacts for IFF.	
7.0	1.10, 1.14, 1.32	.012	Interrogate air and surface contacts for IFF.	
8.0	1.10, 1.30	.012	Monitor the quality of ownship's automatic and manual tracking.	
9.0	1.10., 1.14, 1.17	.025	Detect and enter late detects, splits, and ASCMs.	
10.0	1.30	.012	Set up and monitor the operation of the BVP/ADT.	
11.0	1.30	.012	Select the operating submode of the BVP/ADT.	
12.0	1.30	.012	Establish BVP/ADT interrogation and tracking sectors.	
13.0	1.10, 1.11, 1.14	.025	Establish Identity, Category, and Classification for local tracks.	
14.0	1.15	.012	Resolve identification conflicts.	
15.0	1.12, 1.13	.012	Enter personal identification codes and discrete identification codes on tracks.	
16.0	1.15	.012	Resolve tracking mix-ups.	
17.0	1.32	.012	Enter and update subsurface targets.	
18.0	1.15	.012	Conduct and enter gridlock.	
19.0	1.5	.012	Make tactical maneuvering recommendations.	
20.0	1.14, 1.19	.025	Enter non-IDS reports.	
21.0	1.14,	.012	Enter range and azimuth sequencing parameters.	

	CIN: K-221-0334 CDP: 143L		Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
22.0	1.14, 1.19	.012	Drop tracks from the system.
23.0	1.10, 1.14	.025	Monitor Link 11.
24.0	1.33	.050	Monitor Link 11.
25.0	1.33	.050	Relay orders and commands to other operators.
26.0	1.33	.025	Relay orders and commands to other operators.
27.0	1.33	.050	Monitor ownship weapon engagements and orus hanges.
28.0	1.33	.050	Evaluate emergency situations and order ownship actions.
29.0	1.33	.025	Monitor availability status of overship's weapons.
30.0	1.33, 1.38	.025	Respond to force apon orc s.
31.0	1.33	.025	Monitor and regulate program generated relative threat calculations.
32.0	1.33		Vital Area Center, and Formation Center.
33.0	1.5	.0	है। कि का कार्य wints into the system to be either solved or geographically fixed.
34.0	1.33	.050	Order actions when CANNOT ENGAGE alerts are received.
35.0	1.33	.050	Issue CEASE FIRE, HOLT FIRE, AND BREAK ENGAGE orders.
36.0	1.33	.012	Evaluate cill/survived status.
37.0	1.33	.025	Accept and acknowledge target assignments from EWC modes.
38.0	1.5, 1.19	.050	Display closest point of approach.
39.0	1.33	.025	Generate course to steer recommendations to unmask sensors and weapons.

Appendix F

Operations Specialist (OS) Training Attitude Survey Results

OS Training Attitude Survey Results

	Respo	onses ^a
Town and Decreed		Standard
Item and Paygrade	Mean	Deviation
Job Satisfa	action	
My chances for advancement are good.		
E-1	4.4	1.1
E-2	4.2	0.9
E-3	4.2	1.0
E-4	3.9	1.1
E-5	3.7	1.2
E-6	3.4	1.2
E-7	3.7	1.3
E-8	3.9	1.2
E-9	3.8	1.7
have received enough formal training opportunities.		
E-1	3.2	1.3
E-2	3.0	1.3
E-3	2.9	1.3
E-4	2.9	1.3
E-5	3.1	1.3
E-6	3.3	1.3
E-7	3.6	1.1
E-8	4.0	1.2
E-9	3.1	1.7
have adequate opportunity to fully use my abilities.		
E-1	2.7	1.5
E- 2	3.3	1.3
E-3	3.0	1.3
E- 4	2.8	1.4
3-5	3.1	1.3
E-6	3.3	1.3
E- 7	3.6	1.4
E-8	3.9	1.2
E-9	4.4	0.7

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

	Resp	onses ^a
Itam and Daysenda	Man	Standard
Item and Paygrade	Mean	Deviation
Job Sati	sfaction (Continued)	
The formal training I have received provides me with	the skills I need to perform my job.	
E-1	3.8	1.3
E-2	3.8	1.3
E-3	3.6	1.2
E-4	3.6	1.2
E-5	3.8	1.1
ē-6	3.9	1.1
3-7	4.0	1.0
:-8	3.9	1.1
E-9	3.9	0.9
am satisfied with the progress I have made in the Nav	y up to now.	
Z- I	3.5	1.5
E-2	3.7	1.3
-3	3.7	1.2
2-4	3.7	1.2
E-5	4.1	1.1
E-6	3.8	1.2
E-7	4.2	1.0
:-8	4.4	1.1
E-9	5.0	0
feel that the ability to perform my job has increased a	s a result of my formal training.	
- 1	3.6	1.4
E-2	3.7	1.1
i-3	3.3	1.2
2-4	3.5	2.0
-5	3.7	1.1
. -6	3.9	1.1
¥7	4.1	0.9
2-8	4.2	0.9
E-9	3.8	1.2

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

	Respo	onses ^a
Item and Paygrade	Mean	Standard Deviation
		Deviation
Job Satisfaction (Contin	ued)	
I think that I was placed in the right rating in the Navy.		
E-1	3.3	1.4
E-2	3.4	1.4
E-3	3.0	1.4
E-4	3.0	1.5
E-5	3.6	1.4
E-6	3.7	1.3
E-7	4.2	1.1
E-8	4.1	1.2
E-9	4.3	1.0
I feel a great sense of personal satisfaction when I do my job well.		
E-1	4.5	1.1
E-2	4.4	1.0
E-3	4.5	0.9
E-4	4.3	1.1
E-5	4.7	0.8
E-6	4.8	0.6
E-7	4.8	0.5
E-8	4.9	0.4
E-9	4.9	0.3
My supervisor encourages me to receive available formal training.		
E-1	3.7	1.3
E-2	3.5	1.2
E-3	3.2	1.3
E- 4	2.9	1.4
E-5	3.4	1.3
E-6	3.3	1.4
E-7	3.7	1.2
E-8	3.8	1.1
E-9	3.3	1.4

 $^{^{}a}$ Responses range from 1 = strongly disagree to 5 = strongly agree.

	Responses ^a	
Item and Paygrade	Mean	Standard Deviation
		Deviadon
Job Satisfaction (Continue	xd)	*= ,
The on-the-job training that I receive is adequate.		
E-1	3.5	1.3
E-2	3.7	1.0
E-3	3.6	1.1
E-4	3.4	1.1
E-5	3.5	1.1
E-6	3.6	1.1
E-7	3.6	0.9
E-8	3.7	1.0
E-9	3.8	0.6
I feel that I am getting enough feedback about my job performance.		
E-1	2.9	1.3
E-2	3.0	1.4
E-3	3.0	1.2
E-4	2.9	1.3
E-5	3.5	1.2
E-6	3.4	1.3
E-7	3.3	1.3
E-8	3.8	1.2
E-9	4.4	0.8
My supervisor is aware of my formal training needs.		
E-1	3.9	1.4
E-2	3.6	1.1
E-3	3.4	1.1
E-4	3.1	1.3
2-5	3.5	1.2
E-6	3.6	1.2
E-7	3.6	1.2
E -8	3.9	1.0
E-9	4.0	1.4

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

	Respo	onses*
		Standard
Item and Paygrade	Mean	Deviation
Job Satisf	action (Continued)	
I get a feeling of accomplishment from this job.		
E-1	3.1	1.3
E-2	3.7	1.1
E-3	3.4	1.2
E- 4	3.0	1.4
E-5	3.7	1.2
E-6	3.8	1.2
5- 7	4.1	0.9
E- 8	4.1	1.1
E-9	4.7	0.5
The promotion system is adequate.		
E-1	2.8	1.4
E-2	3.4	1.1
2-3	3.5	1.2
-4	3.3	1.3
E-5	3.0	1.3
E-6	2.9	1.3
2- 7	3.3	1.2
E-8	3.9	1.2
:-9	4.5	1.0
am learning skills that will be useful later in my enlistr	nent.	
<u>3-1</u>	3.3	1.2
E-2	3.7	1.3
3-3	3.5	1.4
E-4	3.2	1.4
F-5	3.8	1.2
E-6	3.9	1.3
2- 7	4.2	1.1
÷8	4.3	0.9
3 -9	4.0	1.3

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

	Respo	onses ^a
		Standard
Item and Paygrade	Mean	Deviation
Job Satisfaction (Continue	ed)	
The formal training I have received provides good chances for getting ah	ead.	
E-1	3.6	1.1
E- 2	3.6	1.2
E-3	3.1	1.2
E-4	3.0	1.2
E-5	3.5	1.1
E-6	3.6	1.1
2.7	3.7	1.2
E-8	4.0	1.0
E-9	3.5	1.0
This command is generally quick to use existing formal training.		
5-1	3.1	1.4
E-2	3.2	1.1
2-3	3.0	1.2
E- 4	2.9	1.2
<u>-5</u>	3.2	1.2
3-6	3.3	1.2
3-7	3.6	1.2
2-8	3.8	1.1
E-9	3.9	1.0
am pleased that I am in the OS rating.		
3-1	3.9	0.7
3-2	3.6	1.4
E-3	3.5	1.3
E-4	3.2	1.5
2. 5	3.8	1.3
E-6	4.0	1.2
3- 7	4.3	1.0
E-8	4.4	1.0
E-9	4.7	0.7

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

	Respo	onses*
Item and Paygrade	Mean	Standard Deviation
Job Satisfa	action (Continued)	-
am satisfied with the team training I have received.		
E-1	3.3	1.2
3- 2	3.5	1.2
E-3	3.2	1.3
E-4	3.1	1.3
E-5	3.5	1.2
E-6	3.7	1.1
E- 7	3.8	1.1
-8	4.1	1.0
E-9	2.9	1.7
Organizat:	ional Commitment	
intend to complete my enlistment.		
E-1	4.8	0.6
E-2	4.7	0.7
E-3	4.8	0.8
:-4	4.8	0.7
<u>-5</u>	4.8	0.6
E-6	4.8	0.6
<u>2-7</u>	4.9	0.7
₹-8	4.8	0.7
E-9	5.0	0.0
The OSs I work with encourage each other to give their l	pest effort.	
E-1	3.4	1.4
E- 2	3.3	1.2
E-3	3.2	1.3
2.4	2.8	1.3
-5	3.2	1.1
2-6	3.5	1.1
¥7	4.0	0.9
2-8	4.1	1.0
E-9	4.0	0.8

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

	Respo	Responses	
Norm and Danierala	M	Standard	
tem and Paygrade	Mean	Deviation	
Organizational (Commitment (Continued)		
feel a sense of achievement in my job.			
E-1	3.5	1.1	
E-2	3.6	1.3	
E-3	3.4	1.2	
E-4	3.1	1.3	
G-5	3.9	1.1	
E-6	3.9	1.1	
2- 7	4.1	1.1	
E-8	4.2	1.1	
E-9	4.6	0.5	
feel positive about my future with this Command.			
E-1	2.2	1.6	
E-2	3.0	1.4	
-3	2.5	1.3	
-4	2.3	1.3	
E-5	3.1	1.4	
E-6	3.4	1.4	
2- 7	3.7	1.4	
E-8	3.8	1.3	
E-9	4.3	1.3	
intend to make a career out of the Navy.			
- 1	2.4	1.4	
E-2	2.1	1.3	
E-3	2.3	1.2	
-4	2.3	1.3	
-5	3.4	1.4	
~ 6	4.4	1.0	
;-7	4.7	0.9	
2-8	4.9	0.3	
:-9	5.0	0	

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

	Respo	
Item and Paygrade	Mean	Standard Deviation
	ommitment (Continued)	2011011
	ommunent (Continued)	
I think of the Navy's problems as my problems.		
E-1	3.1	1.4
E-2	3.1	1.2
E-3	2.8	1.3
E-4	2.5	1.2
E-5	3.1	1.2
E-6	3.7	1.0
E-7	4.0	1.1
E-8	4.1	0.9
E-9	4.5	1.0
it is important to me to advance through my rating as quid	ckly as possible.	
E-1	4.5	1.3
E-2	4.5	1.0
E-3	4.5	1.0
E- 4	4.4	1.0
E-5	4.7	0.7
E-6	4.6	0.9
E-7	4.6	0.6
E-8	4.5	1.0
E-9	4.9	0.3
The OSs I work with maintain high standards of performa		
E-1	3.7	1.4
E-2	3.6	1.1
E-3	3.4	1.1
E-4	3.0	1.2
5-5	3.4	1.1
5.6	3.6	1.1
5-0 5-7	4.0	0.9
E- 8	4.0 4.1	1.0
E-9	4.0	0.9

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

	Resp	onses*
Item and Paygrade	Mean	Standard Deviation
	Commitment (Continued)	
I would leave the Navy if I had the chance.		
E-1	3.7	1.4
E-2	3.4	1.6
E-3	3.3	1.3
E-4	3.5	1.4
E-5	2.7	1.4
E-6	2.3	1.3
E-7	2.2	1.4
E-8	1.9	1.0
E-9	1.6	0.8
I would like to gain more responsibility.		
E-1	4.4	0.8
E-2	4.2	1.1
E-3	4.0	1.0
E-4	4.0	1.0
E-5	4.4	0.9
E-6	4.5	0.9
E-7	4.5	0.8
E-8	4.2	1.1
E-9	4.6	0.5
My work group is able to respond to unusual work dema	ands when necessary.	
E-1	4.2	0.8
E-2	4.2	0.8
E-3	4.2	0.9
E- 4	4.0	1.0
E-5	4.1	1.0
E-6	4.4	0.9
E-7	4.6	0.7
E-8	4.6	0.5
E-9	4.9	0.3

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

Item and Paygrade	Respo	Responses ^a		
	Mean	Standard Deviation		
	amitment (Continued)	Deviation		
Reenlisting is important to me.	minute (Contract)			
E-1	2.3	1.5		
E-2	2.2	1.3		
E-3	2.4	1.3		
E-4	2.4	1.4		
E-5	3.5	1.4		
E-6	4.1	1.1		
E-7	4.2	1.1		
E-8	4.0	1.3		
E-9	4.5	1.3		
I find that my values and the Navy's values are very similar.				
E-1	2.1	1.2		
E-2	2.7	1.3		
E-3	2.6	1.3		
E-4	2.6	1.3		
E-5	3.2	1.3		
E-6	3.6	1.1		
E-7	3.9	1.1		
E-8	4.0	1.0		
E-9	4.6	1.0		
I take pride in my work.				
E-1	4.3	1.2		
E-2	4.4	0.8		
E-3	4.5	0.9		
E-4	4.3	1.0		
E-5	4.7	0.7		
E-6	4.8	0.5		
E-7	. 4.9	0.4		
E-8	4.9	0.4		
E-9	4.9	0.3		

 $^{^{}a}$ Responses range from 1 = strongly disagree to 5 = strongly agree.

	Responses ^a		
Item and Paygrade	Mean	Standard Deviation	
	· · · · · · · · · · · · · · · · · · ·	Deviation	
Organizational Commitment (Con	tinued)		
l intend to reenlist after finishing my current enlistment.			
E-1	2.4	1.5	
E-2	2.2	1.3	
E-3	2.4	1.3	
E- 4	2.4	1.4	
E-5	3.5	1.4	
E-6	4.1	1.2	
E- 7	4.2	1.3	
E-8	3.6	1.5	
E-9	3.3	2.0	
My work center can meet day to day mission requirements well.			
E-1	4.0	1.1	
E-2	4.0	1.1	
E-3	3.9	1.1	
5- 4	3.8	1.1	
E-5	4.1	1.0	
E-6	4.4	0.8	
3-7	4.6	0.7	
E- 8	4.5	0.8	
E-9	4.7	0.5	
am willing to put forth extra effort to help the Navy.			
E-1	3.5	1.3	
E- 2	3.7	1.1	
E-3	3.7	1.1	
3-4	3.5	1.3	
3-5	4.2	0.9	
G-6	4.5	0.7	
3-7	4.8	0.5	
E-8	4.7	0.5	
2 -9	4.7	0.7	

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

	Res	ponses*
Item and Paygrade	Mean	Standard Deviation
Organizationa	al Commitment (Continued)	
have confidence in the other OSs that I work with.		
E-1	4.1	1.1
E-2	3.7	1.0
E-3	3.6	1.2
E-4	3.3	1.2
E-5	3.6	1.1
E-6	3.9	1.0
E-7	4.2	0.7
E- 8	4.2	1.0
E-9	4.3	0.9

 $^{^{\}mathbf{a}}$ Responses range from 1 = strongly disagree to 5 = strongly agree.

Appendix G

Electronic Warfare Technician (EW) Occupational Standards (OCCSTDS)

ELECTRONICS WARFARE TECHNICIAN

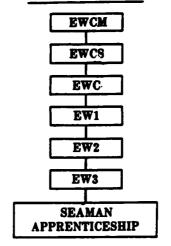
(EW)



Electronics Warfare Technicians (EW) operate and perform organizational and intermediate level maintenance on Electronic Warfare Systems and associated supporting equipment; extract, interpret and apply data from intelligence publications, reports and other documentation; evaluate, interpret and determine equipment capabilities and limitations; evaluate, interpret, process and apply intercepted signal data and Electronic Warfare (EW) tactics and doctrine to operational needs; train and supervise personnel in EW assignments; supervise the preparation of electronic warfare reports; inform Electronic Warfare Officer (EWO) and the Combat Information Center (CIC) Officer or the Tactical Action Officer (TAO) concerning the nature of threat signals and recommend appropriate action; and serve as assistant to EWO.

GENERAL INFORMATION

CAREER PATTERN



Normal path of advancement to Chief Warrant Officer and Limited Duty Officer categories can be found in NAVMILPERSCOMINST 1131.1.

SPECIAL PHYSICAL REQUIREMENTS

Normal color perception; no speech impediment. Refer to Articles 15.13A and 15.21 of the Manual of the Medical Department, U.S. Navy for details on color perception and speech requirements.

Vision 20/20 corrected. Examinations shall be conducted once every three calendar years.

Minimum auditory requirements:

CYCLES	500	1000	2000	4000	8000
ISO	35	30	30	40	45

Auditory examinations shall be conducted as specified in Article 15-10 of the Manual of the Medical Department once each calendar year and results entered on page 13 of the Enlisted Service Record. Personnel failing the examination shall be reported to the Commander, Naval Military Personnel Command (NMPC-242) via the Type Commander with recommendation for disposition.

CITIZENSHIP/SECURITY REQUIREMENTS

Must be eligible for access to classified information.

SAFETY

The observance of proper safety precautions in all areas is an integral part of each billet and the responsibility of every Navy man & woman; therefore, it is a universal requirement for all ratings.

ELECTRONICS WARFARE TECHNICIAN THIRD CLASS (EW3)

21 OPERATIONAL PLANNING

- *21267 PREPARE EW STATUS BOARDS
- *21268 PREPARE EW PLOTS

32 SECURITY

- *32256 COMPLY WITH SIGNAL SECURITY (SIGSEC) PROCEDURES
- *32292 MONITOR EMISSION CONTROL (EMCON) CONDITION IN EFFECT
- *32293 COMPLY WITH EW OPERATIONAL SECURITY (OPSEC) PROCEDURES

33 COMMUNICATIONS

*33332 PERFORM INTERNAL AND EXTERNAL COMMUNICATIONS

43 ELECTRONIC SYSTEMS OPERATION

- *43273 PERFORM DIAGNOSTIC OPERATIONAL TESTS
- *43275 OPERATE EW SYSTEMS
- *43276 ANALYZE INTERCEPTED ELECTRONIC EMISSIONS
- *43277 IDENTIFY INTERCEPTED ELECTRONIC EMISSIONS
- *43279 DIAGNOSE SYSTEM FAULTS
- *43281 DETERMINE PLATFORMS OF IDENTIFIED ELECTRONIC EMISSIONS
- *43291 INITIATE CORRECTIVE ACTION TO FACILITATE EQUIPMENT REPAIR

44 ELECTRICAL/ELECTRONIC MAINTENANCE

*44251 PERFORM PREVENTIVE MAINTENANCE

62 GENERAL WATCHSTANDING

- *62278 MAINTAIN OPERATIONAL LOGS
- •62279 INITIATE OPERATIONAL REPORTS
- *62280 CONDUCT EW WATCH TURNOVER

68 TECHNICAL ADMINISTRATION

- 68020 MAINTAIN DIRECTIVES
- 68024 MAINTAIN PUBLICATIONS
- *68251 COMPILE DATA FOR ADMINISTRATIVE REPORTS

*Denotes change

Ch. No. 2 10-A-3 July 1988 (Effective January 1990)

69 TECHNICAL ADMINISTRATION

*69252 DOCUMENT CHANGES TO SECAS

79 LOGISTICS

- 79011 INVENTORY MATERIAL AND EQUIPMENT
- *79252 PREPARE REQUISITION FORMS AND DOCUMENTS

ELECTRONICS WARFARE TECHNICIAN SECOND CLASS (EW2)

21 OPERATIONAL PLANNING

- *21252 DETERMINE OWN SHIP VULNERABILITY TO THREAT
- *21255 SELECT OPTIMUM SENSORS TO PERFORM EW MISSION
- *21260 PREPARE ELECTRONIC ORDER OF BATTLE (EOB)
- *21266 COMPILE OWN FORCE WEAPONS CAPABILITIES MATRIX

37 MECHANICAL MAINTENANCE

- *37266 PERFORM CORRECTIVE MAINTENANCE ON DRY AIR AND COOLING SYSTEMS
- 37557 PERFORM PREVENTIVE MAINTENANCE ON DRY AIR AND COOLING SYSTEMS

44 ELECTRICAL/ELECTRONIC MAINTENANCE

- *44255 REPAIR EQUIPMENT CASUALTIES
- 44284 REMOVE AND REPLACE DEFECTIVE COMPONENTS AND MODULES
- *44437 SOLDER AND SPLICE CONNECTIONS
- *44438 ALIGN SYSTEMS
- *44479 TROUBLESHOOT EQUIPMENT CASUALTIES
- 44480 TEST COMPONENTS AND CIRCUITS OF SYSTEMS
- *44481 INSTALL FIELD CHANGES AND ENGINEERING CHANGE PROPOSALS (ECP)

47 TEST EQUIPMENT

*47252 OPERATE ELECTRONIC TEST EQUIPMENT

59 MATERIAL CASUALTY CONTROL

- *59002 PERFORM CASUALTY ANALYSIS
- *59256 RESTORE EW EQUIPMENT OPERATIONS UNDER BATTLE AND EMERGENCY CONDITION:

*Denotes change

Ch. No. 2 July 1988 (Effective January 1990)

10-A-4

62 GENERAL WATCHSTANDING

- *62281 MAINTAIN CONTROL OF TACTICAL EW ENVIRONMENT
- •62282 MODIFY EW WATCH POSTURE TO MEET CHANGING TACTICAL SITUATIONS
- *62283 CORRELATE RECORDED ELECTRONICS EMISSIONS
- *62284 RECOMMEND COUNTERMEASURE EMPLOYMENT

67 SUPERVISION

*67332 SUPERVISE EW WATCH

69 TECHNICAL ADMINISTRATION

- 69046 MAINTAIN TEST EQUIPMENT CALIBRATION SCHEDULES
- *69254 INITIATE MAINTENANCE DATA SYSTEM (MDS) FORMS
- *69256 INITIATE PREVENTIVE MAINTENANCE SYSTEM (PMS) FEEDBACK REPORTS
- *69485 MAINTAIN EW TECHNICAL LIBRARY

70 TRAINING

- *70307 INSTRUCT PERSONNEL IN EW WATCH FUNCTIONS
- *70343 INSTRUCT PERSONNEL IN EQUIPMENT OPERATION

79 LOGISTICS

- *79018 ORDER PARTS AND TOOLS
- *79257 VERIFY SPARE PART SUPPORT IN COSAL
- *79268 INVENTORY INSTALLED EQUIPMENT
- *79284 PREPARE REPAIRABLES FOR TURN IN

ELECTRONICS WARFARE TECHNICIAN FIRST CLASS (EW1)

17 WEAPONS SYSTEMS OPERATION

*17281 IMPLEMENT PLANS FOR UTILIZING EW WEAPONS

21 OPERATIONAL PLANNING

*21269 DETERMINE INFORMATION FOR EW STATUS BOARDS

47 TEST EQUIPMENT

*47272 ANALYZE TEST EQUIPMENT DEFECTS

*Denotes change

Ch. No. 2 10-A-5 July 1988 (Effective January 1990)

57 MAINTENANCE PLANNING

- *57260 PREPARE PREVENTIVE MAINTENANCE SYSTEM (PMS) SCHEDULES
- *572° REVIEW MAINTENANCE DATA SYSTEM (MDS) FORMS
- *57276 MAINTAIN PREVENTIVE MAINTENANCE SYSTEM (PMS) SCHEDULES

67 MANAGEMENT AND SUPERVISION

- •67354 SUPERVISE PERSONNEL IN THE OPERATION OF EW EQUIPMENT
- *67361 SUPERVISE PERSONNEL IN THE MAINTENANCE OF EW EQUIPMENT

68 GENERAL ADMINISTRATION

*68252 DRAFT EW ANNEX UPDATES TO SHIP'S DOCTRINES

69 TECHNICAL ADMINISTRATION

*69405 INITIATE ELECTRONIC WARFARE TECHNICAL REPORTS

70 TRAINING

- *70325 INSTRUCT PERSONNEL IN ANALYSIS OF ELECTRONIC EMISSIONS
- *70333 INSTRUCT PERSONNEL IN THE MAINTENANCE OF EW SYSTEMS
- *70352 INSTRUCT PERSONNEL IN TACTICAL EW OPERATIONS

79 LOGISTICS

*79307 ESTABLISH PRE-DEPOLYMENT LOGISTICS REQUIREMENTS

CHIEF ELECTRONICS WARFARE TECHNICIAN (EWC)

21 OPERATIONAL PLANNING

- *21256 IMPLEMENT OPERATIONAL DECEPTION PROCEDURES (OPDEC)
- *21257 MONITOR COMPLIANCE WITH OPDEC PROCEDURES
- *21262 PREPARE OWN SHIP'S EMCON BILL
- *21263 PREPARE PLANS FOR INTEGRATING EW WITHIN THE OVERALL OFFENSIVE AND DEFENS WEAPONS SYSTEM
- *21265 DETERMINE LIMITATIONS OF OWN SHIP'S SENSORS AND WEAPONS SYSTEMS IN A THE ENVIRONMENT

32 SECURITY

- *32259 MONITOR COMPLIANCE WITH OPERATIONAL SECURITY (OPSEC) PROCEDURES
- *32264 IMPLEMENT OPSEC PROCEDURES

*Denotes change

Ch. No. 2 July 1988 (Effective January 1990)

10-A-6

57 MAINTENANCE PLANNING

- *57280 REVIEW PREVENTIVE MAINTENANCE SYSTEM (PMS) SCHEDULES
- *57284 REVIEW WORK PACKAGES
- *57290 VERIFY ACCURACY OF PMS PACKAGE

67 MANAGEMENT AND SUPERVISION

- *67403 MANAGE THE TESTING AND EVALUATION OF NEWLY INSTALLED AND/OR OVERHAULED EQUIPMENT
- •67420 COORDINATE REPAIR OF SPECIAL PURPOSE ELECTRONIC TEST EQUIPMENT (SPETE)
- *67423 COORDINATE RESOURCES FOR EW OPERATIONS
- *67447 COORDINATE THE CALIBRATION OF SPETE

68 GENERAL ADMINISTRATION

- *68268 WRITE EW CORRESPONDENCE
- *68270 MAINTAIN EW DOCTRINE

69 TECHNICAL ADMINISTRATION

- *69260 ANALYZE EW DISCREPANCY TRENDS
- *69262 SCREEN REQUISITIONS FOR ACCURACY
- *69284 PREPARE CASUALTY REPORTS
- •69486 PREPARE REPORTS ON MAINTENANCE OF EW SYSTEMS
- *69490 PREPARE REPORTS ON PERFORMANCE OF EW SYSTEMS
- •69494 DETERMINE ACTIONS REQUIRED TO CORRECT EW DISCREPANCIES

70 TRAINING

- *70261 DEVELOP EW TRAINING PROGRAMS
- *70272 IMPLEMENT EW TRAINING PROGRAMS

SENIOR CHIEF ELECTRONICS WARFARE TECHNICIAN (EWCS)

21 OPERATIONAL PLANNING

- *21258 DEVELOP EW TASKING FOR NAVAL OPERATIONS
- *21259 COORDINATE PLATFORM REQUIREMENTS FOR BATTLE GROUP OPERATIONS
- *21264 INTEGRATE EW REQUIREMENTS INTO BATTLE GROUP MISSION OBJECTIVES

Ch. No. 2 July 1988 (Effective January 1990)

^{*}Denotes change

57 MAINTENANCE PLANNING

- *57272 COORDINATE MAINTENANCE PROGRAMS WITH OPERATIONAL COMMITMENTS
- *57294 DEVELOP MAINTENANCE PROGRAM TO SUPPORT MULTI-SHIP REQUIREMENTS
- *57296 IMPLEMENT MAINTENANCE PROGRAMS TO SUPPORT MULTI-SHIP REQUIREMENTS

67 MANAGEMENT AND SUPERVISION

- *67251 COORDINATE BATTLEGROUP EW OPERATIONS
- *67259 RECONSTRUCT EW OPERATIONS FOR ANALYSIS

68 GENERAL ADMINISTRATION

- *68264 WRITE EW DIRECTIVES
- *68274 IDENTIFY REQUIREMENTS FOR THE ACQUISITION OF EW SYSTEMS
- *68276 DEVELOP WATCHSTANDING REQUIREMENTS

69 TECHNICAL ADMINISTRATION

- *69302 MONITOR SHIP ALTERATIONS
- *69316 PREPARE ALTERATION REPORTS

70 TRAINING

- *70282 DEVELOP BATTLE GROUP TRAINING PLANS
- *70286 IMPLEMENT BATTLE GROUP TRAINING PLANS

MASTER CHIEF ELECTRONICS WARFARE TECHNICIAN (EWCM)

21 OPERATIONAL PLANNING

- *21270 DEVELOP EW PLANS FOR MARITIME OPERATIONS
- *21271 CORDINATE EW PLANS FOR MARITIME OPERATIONS

57 MAINTENANCE PLANNING

- *57259 DEVELOP MAINTENANCE PROGRAM TO SUPPORT FORCE EW REQUIREMENTS
- *57298 COORDINATE OVERHAUL PROGRAMS WITH OPERATIONAL COMMITMENTS
- *57306 IMPLEMENT MAINTENANCE PROGRAM TO SUPPORT FORCE EW REQUIREMENTS

67 MANAGEMENT AND SUPERVISION

- *67280 DEVELOP COMBAT READINESS IMPROVEMENT PROGRAMS
- *67286 ASSESS NAVAL INTEROPERABILITY IN JOINT OPERATIONS
- *67338 IMPLEMENT COMBAT READINESS IMPROVEMENT PROGRAMS

*Denotes change

Ch. No. 2 July 1988 (Effective January 1990)

10-A-8

68 GENERAL ADMINISTRATION

*68302 TRANSLATE FLEET REQUIREMENTS FOR THE ACQUISITION OF EW SYSTEMS

69 TECHNICAL ADMINISTRATION

- *69286 REVIEW TECHNICAL DATA PACKAGES FOR IMPLEMENTATION OF SHIPALTS
- *69:88 DEVELOP TEST EVALUATION MASTER PLANS FOR ACQUIRED EW SYSTEMS

70 TRAINING

- *70360 ACQUIRE EW TRAINING PACKAGES FOR NEWLY DEVELOPED FLEET SYSTEMS
- *70362 ESTABLISH LIFE CYCLE SUPPORT FOR EW TRAINING PROGRAMS

78 FINANCIAL CONTROL

*78252 EXECUTE DOD APPROPRIATIONS FOR EW MISSION REQUIREMENTS

98 PLANNING AND ESTIMATING

*98256 FORECAST EW REQUIREMENTS TO COUNTER THREATS

*Denotes change

Ch. No. 2
10-A-9
July 1988
(Effective January 1990)

(REVERSE IS BLANK)

Appendix H

Electronic Warfare Technician (EW) Surveys

EW Training Attitude Survey	H-1
EW Job Performance Survey - Supervisor	H-11

ELECTRONIC WARFARE TECHNICIAN (EW) TRAINING ATTITUDE SURVEY

1991

"Your opinions and attitudes are important to me!"

Chief of Naval Personnel Vice Admiral J. M. Boorda

Navy Personnel Research and Development Center San Diego, California 92152-6800

PRIVACY ACT STATEMENT

Public Law 93-579, called the Privacy Act of 1974, requires that you be informed of the purposes and uses to be made of the information collected. Navy Personnel Research and Development Center may collect the information requested in the Electronic Warfare Technician (EW) Training Attitude Survey, 1991, under the authority of 5 United States Code 301.

The information collected in the questionnaire will be used to evaluate existing and proposed Navy personnel policies and procedures.

Providing information in this form is voluntary. Failure to respond to any particular questions will not result in any penalty to the respondent except the possible lack of representation of your views in the final results and outcomes.

Report Control Symbol 1514-4 has been assigned to this survey.



ELECTRONIC WARFARE TECHNICIAN (EW) TRAINING ATTITUDE SURVEY

Instructions

The purpose of this survey is to gather information about training attitudes within the EW rating. The first section deals with general attitudes and the second section addresses attitudes about specific courses you have taken. Please read each item carefully. Indicate your degree of agreement or disagreement with each item by placing the number that expresses your opinion in the space provided. Your opinions are important and there are no right or wrong answers. Your participation will help ensure that personnel in the EW rating are trained at the appropriate time in their career, and have the necessary skills and knowledge to perform their jobs. The information you provide will be kept confidential. To avoid repetition, begin each phrase with: "To what extent do I agree that ..."

Example

Strongly Disagree 1	Somewhat Disagree 2	Undecided 3	Somewhat Agree 4	Strongly Agree 5
"To what exte	ent do I agree that	t•		
<u>3</u> 5.	The federal de	eficit is a serious	problem.	

If you have questions, you may contact:

April Moranville (619) 553-7687 (A/V 553-7687) or EWC(SW) Mike Pfaff (619) 553-7684 (A/V 553-7684)

Please complete the survey within one week and return it in the enclosed envelope to:

Navy Personnel Research and Development Center (Code 142) San Diego, CA 92152-6800

Thank you for your time and effort!

ELECTRONIC WARFARE TECHNICIAN (EW) TRAINING ATTITUDE SURVEY

Section I

	Strongly Disagree 1	Somewhat Disagree 2	Undecided 3	Somewhat Agree 4	Strongly Agree 5
	"To what ex	tent do I agree tha	t"		
	1.	I intend to comp	lete my enlistme	nt.	
•	2.	My chances for	advancement are	e good.	
	3.	The EWs I work	with encourage	each other to giv	e their best effort
	4.	I have received e	enough formal tra	aining opportuni	ties.
	5.	I feel a sense of	achievement in r	my job.	
	6.	I have adequate	opportunity to fu	ully use my abiliti	es.
_	7.	I feel positive abo	out my future wit	th this Command	l.
_	8.	The formal training to perform my jo		ed provides me v	vith the skills I nee
	9.	I intend to make	a career out of t	he Navy.	
	10.	I am satisfied with	h the progress I	have made in th	e Navy up to now
	11.	I think of the Nav	y's problems as	my problems.	
	12.	I feel that the abil my formal training		y job has increas	sed as a result of
	13.	I think that I was	placed in the rig	ht rating in the N	avy.
	14.	It is important to possible.	me to advance t	hrough my rating	g as quickly as
	15.	I feel a great sens	se of personal sa	atisfaction when	I do my job well.
	16.	The EWs I work v	with maintain hig	h standards of p	erformance.
	17.	My supervisor en	courages me to	receive available	e formal training.

Strongly Disagree 1	Somewhat Disagree 2	Undecided 3	Somewhat Agree 4	Strongly Agree 5
				

"To w	hat ex	tent do I agree that"
	18.	I would leave the Navy if I had the chance.
	19.	The on the job training that I receive is adequate.
	20.	I would like to gain more responsibility.
	21.	I feel that I am getting enough feedback about my job performance.
	22.	My work group is able to respond to unusual work demands when necessary.
	23.	Reenlisting is important to me.
	24.	My supervisor is aware of my formal training needs.
	25.	I get a feeling of accomplishment from this job.
	26.	I find that my values and the Navy's values are very similar.
	27 .	The promotion system is adequate.
	28.	I take pride in my work.
	29.	I am learning skills that will be useful later in my enlistment.
	30.	I intend to reenlist after finishing my current enlistment.
	31.	The formal training I have received provides good chances for getting ahead.
	32.	My work center can meet day to day mission requirements well.
	33.	This command is generally quick to use existing formal training.
	34.	I am pleased that I am in the EW rating.
	35.	I am willing to put forth extra effort to help the Navy.
	36.	I have confidence in the other EWs that I work with.
	37	I am satisfied with the team training I have received.

Section II

In this section, you are asked to provide information about specific courses you have taken. Please list the last <u>five</u> formal EW courses you have taken, e.g., SLQ-32 OPS, and then rate how well this course prepared you to perform your job. Place the number of the statement that corresponds to how you feel next to each course using the following scale:

- 1. Unsatisfactory Course definitely did not prepare me to perform my job.
- 2. Satisfactory Course adequately prepared me to perform my job.
- 3. Highly satisfactory Course completely prepared me to perform my job.

List t	he last five formal EW courses you have taken.	Rate each course.
1.		
2.		
3.		
4.		
5		

ELECTRONIC WARFARE TECHNICIAN (EW) JOB PERFORMANCE SURVEY - SUPERVISOR

1991

"Your opinions and attitudes are important to me!"

Chief of Naval Personnel Vice Admiral J. M. Boorda

Navy Personnel Research and Development Center San Diego, California 92152-6800

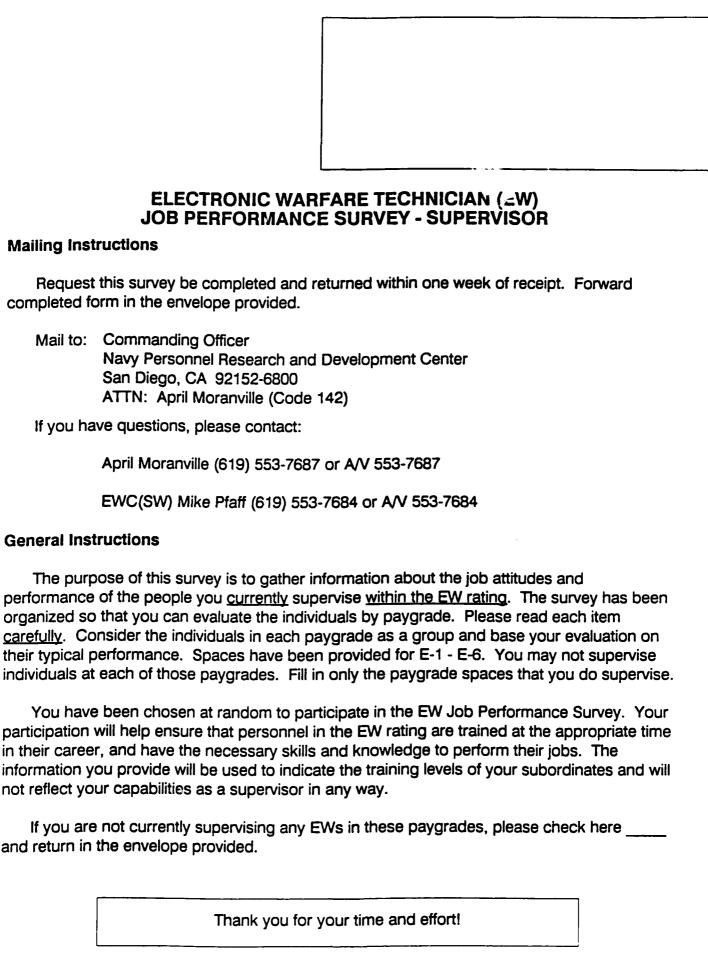
PRIVACY ACT STATEMENT

Public Law 93-579, called the Privacy Act of 1974, requires that you be informed of the purposes and uses to be made of the information collected. Navy Personnel Research and Development Center may collect the information requested in the Electronic Warfare Technician (EW) Job Performance Survey - Supervisor, 1991, under the authority of 5 United States Code 301.

The information collected in the questionnaire will be used to evaluate existing and proposed Navy personnel policies and procedures.

Providing information in this form is voluntary. Failure to respond to any particular questions will not result in any penalty to the respondent except the possible lack of representation of your views in the final results and outcomes.

Report Control Symbol 1514-5 has been assigned to this survey.



Example

E-6 Jones has been asked to evaluate his subordinates on their physical fitness. He supervises five E-4s and two E-5s. To answer the following questions, Jones considers the five E-4s as a group and indicates their typical performance. He does the same for the two E-5s. He does not supervise any E-1s, E-2s, E-3s, or E-6s so he leaves those spaces blank.

	E-1		E-2	 E-3
<u></u>	E-4	<u>B</u>	E-5	 E-6

- 1. In general, the physical fitness of my subordinates is...
 - a. Unsatisfactory Overweight, and unable to complete assigned tasks because of strength limitations.
 - b. Satisfactory Generally physically strong enough to complete assigned tasks. Is within weight requirements.
 - c. Highly satisfactory Always able to do their share of the required manual labor. Excellent fitness reports.

ELECTRONIC WARFARE TECHNICIAN (EW) JOB PERFORMANCE SURVEY - SUPERVISOR

E-1 E-2 E-3 E-4 E-5 E-6	 In general, the work quality on assigned tasks is Unsatisfactory - The work must be consistently re-done. Below average - Work is below standard of others. Average - Work is comparable to others on the job. Above average - Work quality often exceeds standard of others on the job. Exceptional - Work quality exceeds standard of others on the job.
E-1 E-2 E-3	In general, the skill and knowledge levels exhibited are
E-4E-5E-6	 a. Unsatisfactory - Fails to demonstrate necessary skills and knowledge. b. Below average - Demonstrates some of the necessary skills and knowledge, but definitely substandard. c. Average - Demonstrates normal grasp of skills and knowledge. d. Above average - Often demonstrates superior grasp of skills and knowledge. e. Exceptional - Demonstrates outstanding grasp of skills and knowledge.
E-1 E-2 E-3	In general, the performance on maintenance tasks is
E-4 E-5 E-6	 a. Unsatisfactory - Cannot complete tasks without assistance, work is usually substandard. b. Below average - Often requires assistance to complete tasks, work is often faulty. c. Average - Tasks are completed with little or no assistance, and the completed effort is of good quality.

e. Exceptional - Tasks are completed without assistance, and the completed job is of consistently excellent quality.

d. Above average - Usually completes tasks with no assistance, and the completed effort is generally

f. Not applicable - Individual does not perform maintenance tasks.

of above average quality.

E-1E-2E-3 E-4E-5E-6	 4. In general, the performance on operator tasks is a. Unsatisfactory - Cannot complete tasks without assistance, work is usually substandard. b. Below average - Often requires assistance to complete tasks, work is often inaccurate. c. Average - Tasks are completed with little or no assistance, and the completed effort is usually accurate. d. Above average - Usually completes tasks with no assistance, and the completed effort is accurate. e. Exceptional - Tasks are completed without assistance and the completed job is of consistently excellent quality.
E-1E-2E-3 E-4E-5E-6	 5. In general, the time spent on task is a. Unsatisfactory - Requires an extraordinary length of time to complete work assignments. b. Below average - Requires more than the average amount of time to complete work assignments. c. Average - Requires a normal amount of time to complete tasks. d. Above average - Often completes work assignments in less time than normal. e. Exceptional - Completes job assignments much quicker than normal.
E-1 E-2 E-3 E-4 E-5 E-6	 6. In general, the amount of supervision required is a. Constant - Requires continual supervision to perform satisfactorily. b. Excessive - Requires more than average supervision to perform satisfactorily. c. Average - Requires a normal amount of supervision. d. Minimal - Requires supervision occasionally. e. Infrequent - Rarely requires supervision
E-1E-2E-3 E-4E-5E-6	 7. In general, the ability to respond to unusual work demands is a. Unsatisfactory - Individual is unable to adapt his skills and knowledge to perform an unfamiliar job task. b. Below rerage - Individual is often unable to respond in a situation in which he may have to do an unusual task. c. Average - Individual is generally able to complete an unusual job task. d. Above average - Individual is almost always able to complete an unfamiliar job task, and the work quality is good. e. Exceptional - Individual is always able to respond and the work quality is excellent.

E-1 E-2 E-3 E-4 E-5 E-6	 8. In general, my subordinate's job attitudes are a. Negative - Attitude is consistently negative b. Neutral - Attitude seems to be neither negative nor positive. c. Positive - Attitude is consistently positive.
E-1 E-2 E-3 E-4 E-5 E-6	 9. In general, my subordinate's progress with their PQS requirements are a. Unsatisfactory - Shows no interest in completing PQS requirements. b. Average - Is currently working towards completing PQS requirements. c. Exceptional - Completed PQS requirements in unusually short amount of time.
E-1 E-2 E-3 E-4 E-5 E-6	 10. Would you recommend your subordinates for advancement? a. Not recommended - Would not recommend for advancement. b. Progressing - Showing satisfactory progress toward advancement. c. Recommended - Would recommend for advancement.
E-1E-2E-3 E-4E-5E-6	11. Do you think your subordinates take pride in their work?a. yesb. no
E-1 E-2 E-3 E-4 E-5 E-6	12. Do you consider your subordinates committed to the Navy?a. yesb. no
E-1 E-2 E-3 E-4 E-5 E-6	13. Do you provide your subordinates with feedback about their job performance?a. yesb. no

Short	Answe	r Section	1		
	E-1	E-2	E-3	14.	Did the training your subordinates received provide them with the background necessary to
	E-4	E-5	_E-6		perform the job? a. yes b. no
15.	If you a	answered adequate	no to #14, plea	se i	dentify the areas in which the individual's training
E-1 -	-				
E-2 -	-				
E-3	•				
E-4 -					
E-5 -					
E-6 -					
16.	Are the qualific	re any su ations of	iggestions you v the individuals y	voul ou s	d make to improve the performance or supervise?

Additional Information
17. Today's date/
18. How many individuals do you supervise in each of the following paygrades?
E-1 -
E-2 -
E-3 -
E-4 -
E-5 -
E-6 -
19. Approximately, how long have you been supervising the personnel you have just evaluated?
19. Approximately, how long have you been supervising the personnel you have just evaluated?E-1 -
evaluated?
evaluated? E-1 -
E-1 - E-2 -
E-1 - E-2 - E-3 -
E-1 - E-2 - E-3 - E-4 -

Appendix I Electronic Warfare Technician (EW) Skills Profile

Electronic Warfare Technician (EW) Skills Profile

Electronic Warfare Technician Class "A" Basic Operations CIN: A-102-0209 CDP: 608J			Effective Date: 84/02/01 Skills Profile
1.0	408J	.200	Identify characteristics of radar measurements.
2.0	608J	.130	Perform Rapid Signal evaluation, correlating emitter to platform information.
3.0	608J	.110	Measure scan period/rate and determine scan type.
4.0	608J	.200	Evaluate signals, using appropriate publications, by NATO Nickname or ELINT Notations.
5.0	608J	.030	Extract specific information from the ELINT Parameters List (EPL).
6.0	608J	.100	Disseminate information using sound powered telephones.
7.0	608J	.100	Disseminate information using Radio telephone.
8.0	608J	.100	Use correct Communication Security.
9.0	608J	.030	Distinguish between Link 4A, 11, and 14.
10.0	608J	0.00	Interpret NTDS symbology.
	Total	1.000000	

Electronic '	Warfare Technic Operator	ian AN/SLQ-32	Effective Date: 84/02/01
CIN:	A-102-0210 C	DP: 016C	Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
1.0	016A	.100	Energize systems and subsystems components and test/adjust operator controls.
2.0	016A	.040	Interpret Built-in-test (BIT), interlock and system overload indicators and displays.
3.0	016A	.050	Load magnetic tape cartridges, enter operating programs, and make threat emitter library entries.
4.0	016A	.100	Determine receiver frequency search limits and establish Quick Reaction ECM engagement doctrine (V-3 ONLY).
5.0	016A	.100	Interpret symbology associated with polar display formats.
6.0	016A	.100	Perform operator functions for emitters under close control.
7.0	016A	.010	Analyze signals using as oscilloscope, ULQ-16, or other equipment.
8.0	016A	.150	Correlate displays of multi-emitters to platform.
9.0	016A	.100	Retrieve and display parameter information from mainline and on-line emitters.
10.0	016A	.050	Set up ESM/ECM inhibit sectors.
11.0	016A	.100	Program systems operating specifications for maximum performance in an operational electronic environment.
12.0	016A	.050	Determine effect of system faults from DDC on operational capability of the system.
13.0	016A	.050	De-energize system and restore required modes to operational status during emergency situa- tions.
14.0	016A	.100	Log signal parameters in Operators Intercept Log.
15.0	016A	.100	Maintain EW status board.
16.0	016A	.100	Generate/update Flectronic Order of Battle.
17.0	016A	.040	Update/maintain tactical/strategic plots.
18.0	016A	.150	Perform watch relief procedures.
19.0	016A	.050	Monitor EMCOM conditions and violations.
20.0	016A	.060	Extract specific information from EOB publications.
21.0	016A	.050	Extract specific information from NWP-33, Electronic Warfare.
22.0	016A	.050	Extract specific information from Allied Maritime Tactical Signal and Maneuvering Board, ATP, Vol. II, Chapter 20.
23.0	016A	.050	Extract specific information from Radiation Characteristics of Electronic Equipment.
24.0	016A	.050	Extract specific information from NWP-12-6-2 Tactical Electronic Warfare Planning Guide for Friendly/Neutral Nations, and NWP 12-6 for Hostile Nations.
25.0	016A	.050	Extract specific information from NWP 12-6-1, Threat Emitter Evaluation Guide.
26.0	016A	.050	Extract specific information from Maritime Electronic Warfare Instruction, ACP 178 NATO SUPP 2(A).
27.0	016A	.050	Verify system's operational readiness through operability test.
28.0	016A	.050	Select system's options in response to BIT, interlock, and overload displays and indicators.
	Total	2.000000	

EW Techi	nician BB CV/C	VN Operations	Effective Date:89/05/08
CIN:	A-102-0211 C	DP: 018C	Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
1.0	3.1.3	.040	Perform Frequency Preset entry procedures.
2.0	3.1.3	.040	Perform Frequency Sector entry procedures.
3.0	3.1.3	.040	Perform TAF entry procedures.
4.0	3.1.3	.040	Perform Manual Analysis procedures.
5.0	3.1.3	.040	Perform Auto Analysis procedures.
6.0	3.1.3	.12	Perform DF procedures.
7.0	3.1.3	.020	Perform DF Sector procedures.
8.0	3.1.3	.020	Perform TAF Match procedures.
9.0	4.2.4	.08	Perform Data-Base entry procedures.
10.0	4.2.4	.03	Perform Print procedures.
11.0	4.2.4	.03	Perform Purge procedures.
12.0		0.00	Observe all equipment and personnel safety procedures and regulations.
13.0	2.1.3	.020	Perform loading and starting of the operations program.
14.0	2.1.3	.01	Perform Date/Time entry procedures.
15.0	2.1.3	.01	Perform system set-up procedures.
16.0	2.1.3	.06	Perform Bias Signature entry procedures.
17.0	2.1.3	.06	Perform TR entry procedures.
18.0	2.1.3	.06	Perform Manual entry procedures.
19.0	2.1.3	.03	Perform Alert Sequence procedures.
20.0	2.1.3	.03	Perform Emitter/Platform procedures.
21.0	2.1.3	.03	Perform Re-ID procedures.
22.0	2.1.3	.03	Perform Label Platform procedures.
23.0	2.1.3	.03	Perform Locate sequencing procedures.
24.0	2.1.3	.02	Perform confirm ID procedures.
25.0	2.1.3	.02	Perform Emitter/Platform Readout procedures.
26.0	2.1.3	.04	Perform Blanking procedures.
27.0	2.1.3	.03	Perform modifying and deleting TR entries procedures.
28.0	2.1.3	.02	Perform and save Bias Signature entry procedures.
29.0		0.00	Observe all equipment and personnel safety procedures and regulations.
	Total	1.000000	

Electronic	: Warfare Technic Technology	cian Electronic	Effective Date: 84/02/01
CIN	: A-102-0214 C	DP: 603A	Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
1.0	3.1.4, 3.1.5	.021	Troubleshoot RC differentiating circuit.
2.0	3.1.4, 3.1.5	.021	Troubleshoot RL differentiating circuit.
3.0	3.1.7, 3.1.8	.021	Troubleshoot RC integrating circuit.
4.0	3.2.11	.021	Troubleshoot unbiased positive series diode limiter.
5.0	3.2.11	.0196	Troubleshoot biased positive series diode limiter.
6.0	3.2.11	.0196	Troubleshoot unbiased negative series diode limiter.
7.0	3.2.11	.0196	Troubleshoot biased negative series diode limiter.
8.0	3.2.22	.0196	Troubleshoot unbiased positive shunt diode limiter.
9.0	3.2.22	.0196	Troubleshoot biased positive shunt diode limiter.
10.0	3.2.22	.0196	Troubleshoot unbiased negative shunt diode limiter.
11.0	3.2.22	.0196	Troubleshoot biased negative shunt diode limiter.
12.0	3.3.5	.0196	Troubleshoot unbiased positive diode clampers.
13.0	3.3.5	.0196	Troubleshoot biased positive diode clampers.
14.0	3.3.10	.0196	Troubleshoot unbiased negative diode clampers.
15.0	3.3.10	.0196	Troubleshoot biased negative diode clampers.
16.0	3.4.10	.0296	Troubleshoot transistor bistable multivibrators.
17.0	3.4.10	.0296	Troubleshoot vacuum tube bistable multivibrators.
18.0	3.4.18	.0196	Troubleshoot transistor monostable multivibrators.
19.0	3.4.18	.0196	Troubleshoot vacuum tube monostable multivibrators.
20.0	3.4.28	.0196	Troubleshoot transistor free-running multivibrators.
21.0	3.4.28	.0196	Troubleshoot vacuum tube free-running multivibrators.
22.0	3.5.9	.0196	Troubleshoot transistor blocking oscillators.
23.0	3.5.9	.9196	Troubleshoot vacuum tube blocking oscillators.
24.0	3.6.4	.0296	Troubleshoot transistor sawtooth generator.
25.0	3.6.9	.0296	Troubleshoot Schockley diode sawtooth generator.
26.0	3.6.14	.024	Troubleshoot SCR sawtooth generator.
27.0	3.6.19	.021	Troubleshoot jut sawtooth generator.
28.0	3.6.24	.025	Troubleshoot free-running thyratron sawtooth generator.
29.0	4.1.28	.0256	Replace a BHC connector on a coaxial cable.
30.0	4.7.11	.0167	Electrically zero a TX.
31.0	4.7.11	.0167	Electrically zero a TR.

Electronic Warfare Technician Electronic Technology CIN: A-102-0214 CDP: 603A			Effective Date: 84/02/01 Skills Profile
32.0	4.7.11	.0167	Electrically zero a CT.
33.0	4.7.11	0.167	Electrically zero a TDX.
34.0	4.7.11	.0167	Electrically zero a TX-TR.
35.0	4.7.11	.0167	Electrically zero a TX-TDX-TR.
36.0	4.7.11	.0167	Electrically zero a CX-CDX-CT.
37.0	4.9.6	.0293	Troubleshoot an IC operational amplifier.
38.0	3.2.0	.0866	Analyze the operation of special circuits used in video display systems.
39.0	3.3.0	.136	Localize to the defective stage, a malfunction in a video display system.
	Total	1.150300	

EW T	echnician AN/SL Maintenance		Effective Date: 89/09/15
CIN	: A-102-0215 CI	DP: 016D	Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
1.0	2.2.1	.033	Perform Computer and Control Diagnostic Test (SDT) in accordance with the technical manual and Maintenance Requirement Card (MRC).
2.0	4.2.2	.033	Perform Band 1 Receiver System Diagnostic Test (SDT) in accordance with the technical man- ual and Maintenance Requirement Card (MRC).
3.0	4.3.1	.033	Perform Receivers System Diagnostic Test (SDT) in accordance with the technical manual and Maintenance Requirement Card (MRC).
4.0	4.3.2	.033	Measure Band 1 Sensitivity and Frequency Accuracy in Accordance with the technical manual and Maintenance Requirement Card (MRC).
5.0	4.3.8	.033	Perform Band 1 BIT Amplitude Threshold Adjustments in accordance with the technical manual and Maintenance Requirement Cards (MRCs).
6.0	4.3.9	.033	Perform Band 1 Local Oscillator (L.O.) Threshold Adjustments in accordance with the technical manual and Maintenance Requirement Cards (MRCs).
7.0	4.3.10	.033	Perform Band 1 Pulse/CW Threshold Adjustments in accordance with the technical manual and Maintenance Requirement Cards (MRCs).
8.0	4.3.3	.033	Check/Adjust Band 1 YIG VCO Tuning End Points in accordance with the technical manual and Maintenance Requirement Cards (MRCs).
9.0	4.3.4	.033	Check/Adjust Band 1 Video Threshold in accordance with the technical manual and Maintenance Requirement Cards (MRCs).
10.0	4.3.5	.033	Check/Adjust Band 1 Log Video Balance in accordance with the technical manual and Maintenance Requirement Cards (MRCs).
11.0	4.3.6	.033	Check/Adjust Band 1 Center Guard Band in accordance with the technical manual and Maintenance Requirement Cards (MRCs).
12.0	4.3.7	.033	Check/Adjust Band 1 Amplitude Encoding in accordance with the technical manual and Maintenance Requirement Cards (MRCs).
13.0	5.5.1	.033	Perform System Operability Test (SOT) in accordance with the technical manual and Maintenance Requirement Cards (MRCs).
14.0	5.6.2	.033	Measure IFM Noise in accordance with the technical manual and Maintenance Requirement Cards (MRCs).
15.0	5.6.3	.033	Test YIG Filter Tuning in accordance with the technical manual and Maintenance Requirement Cards (MRCs).
16.0	5.6.4	.033	Measure SOPA Noise Power in accordance with the technical manual and Maintenance Requirement Cards (MRCs).
17.0	5.15.7	.033	Measure DFR/IFM Sensitivity in accordance with the technical manual and Maintenance Requirement Cards (MRCs).
18.0	5.6.6	.033	Perform IFM Noise Balance Test (Attenuator Pads) in accordance with the technical manual and Maintenance Requirement Cards (MRCs).
19.0	5.13.3	.033	Perform Band 2/3 False Alarm Rate Measurement/Adjust in accordance with the technical man- ual and Maintenance Requirement Cards (MRCs).
20.0	5.13.7	.033	Perform Band 2/3 Offset Voltage Adjustment in accordance with the technical manual and Maintenance Requirement Cards (MRCs).

EW Technician AN/SLQ-32 (V) 2 Maintenance CIN: A-102-0215 CDP: 016D			Effective Date: 89/09/15 Skills Profile
21.0	5.13.9	.033	Perform Band 2/3 Comparator Threshold Voltage Adjustment in accordance with the technical manual and Maintenance Requirement Cards (MRCs).
22.0	5.13.11	.033	Perform Band 2/3 Trigger Threshold Adjustment in accordance with the technical manual and Maintenance Requirement Cards (MRCs).
23.0	5.15.1	.037	Perform Band 2/3 ESM Correlation Timing Adjustment in accordance with the technical manual and Maintenance Requirement Cards (MRCs).
24.0	5.6.5	.037	Perform System Alignments (IFM/MUX, IFM/CFR, SOPA) in accordance with the technical manual and the job sheet.
25.0	8.1.1	.1	Using System Diagnostic Tests (SDTs) in conjunction with the technical manual isolate malfunctions to a Ship Replaceable Assembly (SRA).
26.0	8.1.1	.1	Monitor signals on circuit card pins and appropriate front panel test connections using a break out box isolate malfunctions to a Ship Replaceable Assembly.
	Total	1.000000	

EW Technician AN/SLQ-32 (V)3 Maintenance			Effective Date: 89/11/27
CIN: A-102-	0216 CDP: 016F		Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
1.0	6.1.1	.02	Perform Computer and Control Diagnostic Test (CDT) in accordance with the technical manual and maintenance requirement card (MRC).
2.0	6.1.2	.02	Perform Band 1 Receiver System Diagnostic Test (SDT) in accordance with the technical man- ual and maintenance requirement card (MRC).
3.0	6.1.3	.02	Perform Receivers System Diagnostic Test (SDT) in accordance with the technical manual and maintenance requirement card (MRC).
4.0	6.1.4	.02	Measure Band 1 Sensitivity and Frequency Accuracy in accordance with the technical man- ual and maintenance requirement card (MRC).
5.0	6.1.5	.02	Perform Band 1 BIT Amplitude Threshold Adjustments in accordance with the technical manual and maintenance requirement cards (MRCs).
6.0	6.1.6	.02	Perform Band 1 Local Oscillator (L.O.) Threshold adjustment in accordance with the technical manual and maintenance requirement cards (MRCs).
7.0	6.1.7	.02	Perform Band 1 Pulse/CW Threshold Adjustments in accordance with the technical manual and maintenance requirement cards (MRCs).
8.0	6.1.8	.02	Check/Adjust Band 1 YIG VCO Tuning End Points in accordance with the technical manual and maintenance requirement cards (MRCs).
9.0	6.1.9	.02	Check/Adjust Band 1 Video Threshold in accordance with the technical manual and maintenance requirement cards (MRCs).
10.0	6.1.10	.02	Check/Adjust Band 1 Log Video Balance in accordance with the technical manual and maintenance requirement cards (MRCs).
11.0	6.1.11	.02	Check/Adjust Band 1 Center Guard Band in accordance with the technical manual and maintenance requirement cards (MRCs).
12.0	6.1.12	.02	Check/Adjust Band 1 Amplitude Encoding in accordance with the technical manual and maintenance requirement cards (MRCs).
13.0	6.1.13	.02	Perform Systems Operability Test (SOT) in accordance with the technical manual and maintenance requirement cards (MRCs).
14.0	6.1.14	.02	Measure IFM Noise in accordance with the technical manual and maintenance requirement cards (MRCs).
15.0	6.1.15	.02	Test YIG Filter Tuning in accordance with the technical manual and maintenance requirement cards (MRCs).
16.0	6.1.16	.02	Measure SOPA Noise Power in accordance with the technical manual and maintenance requirement cards (MRCs).
17.0	6.1.17	.02	Measure DFR/IFM Sensitivity in accordance with the technical manual and maintenance requirement cards (MRCs).
18.0	6.1.18	.02	Perform IFM Noise Balance Test (Attenuator Pads) in accordance with the technical manual and maintenance requirement cards (MRCs).
19.0	6.1.19	.02	Perform Band 2/3 False Alarm Rate Measurement/Adjust in accordance with the technical man- ual and maintenance requirement cards (MRCs).
20.0	6.1.20	.02	Perform Band 2/3 Offset Voltage Adjustment in accordance with the technical manual and main- tenance requirement cards (MRCs).
			<u> </u>

EW Technician AN/SLQ-32 (V)3 Maintenance			Effective Date: 89/11/27
IN: A-102-	0216 CDP: 016F	;	Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
21.0	6.1.21	.02	Perform Band 2/3 Comparator Threshold Voltage Adjustment in accordance with the technical manual and maintenance requirement cards (MRCs).
22.0	6.1.22	.02	Perform Band 2/3 Trigger Threshold Adjustment in accordance with the technical manual and maintenance requirement cards (MRCs).
23.0	6.1.23	.02	Perform Band 2/3 ESM Correlation Timing Adjustment in accordance with the technical manual and maintenance requirement cards (MRCs).
24.0	6.1.1	.02	Perform MIP System (ECP-37) adjustments in accordance with the technical manual.
25.0	6.2.9	.02	Using System Diagnostic Tests (SDTs) in conjunction with the technical manual, isolate malfunctions to a Ship Replaceable Assembly (SRA).
26.0	6.2.9	.02	Monitoring signal on circuit pins and appropriate front panel test connections using a break-out box, isolate malfunctions to a Ship Replaceable Assembly.
27.0	6.1.27	.02	Measure RFMU Sensitivity in accordance with the technical manual and maintenance requirement cards (MRCs).
28.0	6.1.28	.02	Perform Operational test of High Voltage Sequencer Manual Switches in accordance with the technical manual and maintenance requirement cards (MRCs).
29.0	6.1.29	.02	Perform High Voltage Power Supplies Test in accordance with the technical manual and maint nance requirement cards (MRCs).
30.0	6.1.30	.02	Perform Transmitter TWT Output Power Test in accordance with the technical manual and m maintenance requirement cards (MRCs).
31.0	6.1.31	.02	Perform Band 2/3 ESM Correlation Timing Adjustment in accordance with the technical manual and maintenance requirement cards (MRCs).
32.0	6.2.1	.02	Perform MIP System (ECP-37) adjustments in accordance with the technical manual.
33.0	6.2.2	.02	Perform Modulation Detector (2A1A6) adjustment in accordance with the technical manual.
34.0	6.2.3	.02	Perform D/A Control and Calibrator (2A1A9A1) adjustment in accordance with the technical manual.
35.0	6.2.4	.02	Perform Transponder Speed Control (2A1A10A1) adjustment in accordance with the technical manual.
36.0	6.2.5	.02	Perform Discriminator Encoder (2A1A13A!) adjustment in accordance with the technical manual.
37.0	6.2.6	.02	Perform BIT Detector Encoder (2A1A16A1) adjustment in accordance with the technical manual.
38.8	6.2.7	.02	Perform Transponder (2A2) Variable Gain Amplifier Spot Control Adjustment in accordance with the technical manual.
39.0	6.2.8	.02	Perform Repeater Threshold Adjustment in accordance with the technical manual.
40.0	6.2.9	.110	Using System Diagnostic Tests (SDTs) in conjunction with the technical manual, isolate malfunctions to a Slup Replaceable Assembly (SRA).
41.0	6.2.9	.110	Monitoring signal on circuit pins and appropriate front panel test connection using a break-out box, isolate malfunctions to a Ship Replaceable Assembly.
42.0			Observe all personnel and equipment safety precautions and procedures.
	Total	1.000000	

EW Technician AN/WLR-1H Maintenance			Effective Date: 90/06/26
CIN:	A-102-0217 C	DP: 018D	Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
1.0	1-1-2	.023	List the major areas of the AN/WLR-1H and the function of each.
2.0	1-1-4	.023	State the operational characteristics and capabilities of the AN/WLR-1H.
3.0	1-2-1	.023	Describe all associated components of the AN/WLR-1H to include name, physical appearance, reference designators, location, and features.
4.0	1-2-2	.023	Describe the displays, controls, and indicators of the AN/WLR-1H to include name, reference designators, positions, colors, and location.
5.0	1-3-1	.023	Describe the functional operations of the AN/WLR-1H to include methods of control, signal flow, sequential operation, and indications.
6.0	1-3-4	.023	Describe the functions of each control and indicator of the AN/WLR-1H in each position, condition, and color.
7.0	1-4-1	.023	Describe the physical interface of the AN/WLR-1H with related external equipment.
8.0	1-5-2	.023	Describe operational tasks of the AN/WLR-1H to include preoperational, operational, and post-operational procedures.
9.0	1-5-4	.023	Describe casualty, degraded, and abnormal modes of operation for the AN/WLR-1H.
10.0	1-5-6	.023	Describe safety precautions to be observed during operation of the AN/WLR-1H ESM system.
11.0	1-6-1	.024	Define the preventive maintenance policy of the AN/WLR-1H to include servicing and operational checks.
12.0	1-6-1	.024	Define the corrective maintenance policy of the AN/WLR-1H ESM system to include authorized repair responsibility, fault isolation, analytical procedures, and postmaintenance procedures.
13.0	1-6-7	.024	Describe the systematic fault isolation procedures for the AN/WLR-1H system.
14.0	1-6-11	.024	Describe the safety precautions to be observed when performing corrective maintenance on the AN/WLR-1H system.
15.0	1-7-1	.024	Describe the organization, content, and use of all AN/WLR-1H system documentation.
16.0	2-1-1	.05	Perform operational tasks on the AN/WLR-1H to include preoperational, operational, and post- operational procedures.
17.0	2-1-3	.05	Perform tasks in the non-full-mission capable modes of AN/WLR-1H operations.
18.0	2-1-4	.05	Adhere to safety precautions during all AN/WLR-H operational procedures.
19.0	2-2-1	.05	Use special tools and test equipment for maintenance of the AN/WLR-1H.
20.0	2-2-2	.05	Perform preventive maintenance on the AN/WLR-1H as scheduled by the planned maintenance system.
21.0	2-2-3	.05	Perform alignment, adjustment, and calibration procedures on the AN/WLR-1H system.
22.0	2-2-4	.05	Perform operational test and/or diagnostic programs for maintenance on the AN/WLR-1H.
23.0	2-2-5	.05	Recognize and interpret all malfunction indications of the AN/WLR-1H.
24.0	2-2-6	.05	Perform fault isolation procedures contained in prescribed maintenance documentation for the AN/WLR-1H.
25.0	2-2-7	.05	Isolate faults in the AN/WLR-1H which cannot be located using procedures contained in prescribed maintenance documentation.
26.0	2-2-8	.05	Disassemble, repair, and reassemble the AN/WLR-1H to the authorized maintenance level.

EW Techn	ician AN/WLR-1	H Maintenance	Effective Date: 90/06/26
CIN: A-102-0217 CDP: 018D			Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
27.0	2-2-9	.05	Perform postrepair procedures, including quality assurance procedures on the AN/WLR-1H system.
28.0	2-2-10	.05	Adhere to safety precautions when performing all maintenance procedures associated with the WLR-1H system.
	Total	1.000000	

Electronic Warfare Technician AN/SLQ-17 Maintenance			Effective Date: 89/09/15
CIN	: A-102-0218 C	DP: 017E	Skills Profile
Number	Objective	Weight	Skill or Knowledge Item
1.0	1.2.6	.0125	Load and conduct test Equipment Test Program.
2.0	1.2.7	.0125	Perform self-tests from the front panels of the equipment.
3.0	1.3.5	.0125	Troubleshoot the system AC power distribution.
4.0	1.3.8	.0125	Conduct power supply and Lamp performance test.
5.0	1.3.9	.0125	Perform Power supply alignments on: (a) units 1/21; and (b) units 4/12.
6.0	1.3.10	.0125	Troubleshoot the system DC power distribution.
7.0	1.3.14	.0125	Troubleshoot the Water Conditioner and Heat Exchanger.
8.0	1.3.116	.0125	Troubleshoot the system Dry Air function.
9.0	1.4.5	.0125	Troubleshoot the system Interlocks.
10.0	1.6.3	.0125	Perform Manual initialization and power control.
11.0	2.1.2	.0125	Troubleshoot the Executive Control panel.
12.0	2.1.7	.0125	Test the AN/UYK-20 and AN/SLQ-17 interface functions.
13.0	2.1.9	.0125	Troubleshoot the peripheral Controller.
14.0	2.1.12	.0125	Troubleshoot the Disc Controller.
15.0	2.1.15	.0125	Remove and replace the Computer group power supplies.
16.0	2.1.16	.0125	Troubleshoot the computer group power supplies.
17.0	2.3.2	.0125	Perform Turn-on and Turn-off procedures for the AN/UYK-20.
18.0	2.3.3	.0125	Demonstrate the ability to use the AN/UYK-20 maintenance panel.
19.0	2.7.1	.0125	Check and verify power supply voltages for the UYK-20.
20.0	2.8.1	.0125	Clean the UYK-20 air filters.
21.0	2.8.2	.0125	Run and interpret AN/UYK-20 Diagnostics (confidence test).
22.0	2.8.3	.0125	Remove and replace AN/UYK-20 circuit cards.
23.0	2.9.3	.0125	Isolate a malfunction in the AN/UYK-20.
24.0	2.10.4	.0125	Perform the GDU power supply overvoltage alignment.
25.0	2.10.5	.0125	Perform the 650vdc, +15kv, and +5kv power supply alignment in the GDU.
26.0	2.10.8	.0125	Perform the Symbol Generator and Major Deflection Board alignment.
27.0	2.10.9	.0125	Perform GDU Joystick alignment.
28.0	2.12.1	.0125	Troubleshoot the control and display system.
29.0	3.1.4	.0125	Perform RF Chain and Memory Loop alignment.
30.0	3.1.5	.0125	Troubleshoot the system RF Chain.
31.0	3.2.6	.0125	Perform RF self-test alignments.
			•

Electronic Warfare Technician AN/SLQ-17 Maintenance CIN: A-102-0218 CDP: 017E			Effective Date: 89/09/15 Skills Profile
32.0	3.2.6	.0125	Troubleshoot the RF self-test functions.
33.0	3.3.5	.0125	Perform the LPA channel "u" alignment.
34.0	3.3.6	.0125	Troubleshoot the AN/SLQ-17 an AN/SLA-10 interface.
35.0	3.3.7	.0125	Troubleshoot the Log Video Subfunction.
36.0	3.3.13	.0125	Perform TR D/A converter and Compression amplifier alignment.
37.0	3.3.14	.0125	Troubleshoot the TR video subfunction.
38.0	3.4.5	.0125	Troubleshoot the Executive control subfunction.
39.0	3.4.9	.0125	Troubleshoot the LPA multiplex subfunction.
40.0	3.4.10	.0125	Perform the PPA alignment.
41.0	3.4.13	.0125	Troubleshoot the LPA front panel indicator subfunction.
42.0	3.5.2	.0125	Troubleshoot the receive subfunction.
43.0	4.4.2	.0125	Troubleshoot the Multiplex and Display in the Video Data Processor.
44.0	5.5.2	.0125	Perform TR self-test.
45.0	5.6.3	.0125	Perform TR Parameter entry.
46.0	6.1.3	.0125	Perform DF comparator alignment.
47.0	6.2.3	.0125	Perform a DF reference level alignment.
48.0	6.4.1	.0125	Perform a DF self-test alignment.
49.0	7.1.6	.0125	Perform TAC D/A converter and signal presence detector "B" alignment.
50.0	7.2.6	.0125	Perform Search signal presence detector "B" and MADF Latch alignments.
51.0	7.4.6	.0125	Perform Manual Analysis trigger alignment.
52.0	7.5.1	.0125	Evaluate the results of a failure of the TAC.
53.0	7.5.2	.0125	Troubleshoot the TAC subfunction.
54.0	8.2.2	.0125	Perform DG self-test portion of ETP.
55.0	8.2.3	.0125	Perform TR Video Path self-test.
56.0	8.3.2	.0125	Troubleshoot the Video Data Processor.
57.0	9.1.3	.0125	Fill, drain, and purge the FC-72 coolant system of the HPA low voltage unit.
58.0	9.2.6	.0125	Remove and replace assemblies in the HPA high voltage unit.
59.0	9.2.7	.0125	Fill the HPA high voltage unit.
60.0	9.3.5	.0125	Troubleshoot the HPA control unit.
61.0	9.4.3	.0125	Remove and replace a TWT amplifier.
62.0	9.4.4	.0125	Perform an HPA TWT voltage alignment.

Electronic Warfare Technician AN/SLQ-17 Maintenance CIN: A-102-0218 CDP: 017E			Effective Date: 89/09/15 Skills Profile
63.0	9.4.5	.0125	Troubleshoot the Transmit function.
64.0	10.1.10	.0125	Troubleshoot the Antenna function.
65.0	11.4.1	.0125	Configure the AN/SSQ-82 patch panel.
66.0	11.4.2	.0125	Activate programmed threat responses.
67.0	11.4.3	.0125	Load threat responses into the AN/SSQ-82.
68.0	11.4.4	.0125	Perform threat audit and edit functions.
69.0	11.8.1	.0125	Initiate operator-controlled AN/SSQ-82 system diagnostics.
70.0	11.18.3	.0125	Clean the AN/SSQ-82 power supply and SPU air filters.
71.0	11.18.4	.0125	Lubricate and inspect AN/SSQ-82 chassis slides.
72.0	11.19.1	.0125	Troubleshoot the AN/SSQ-82.
73.0	12.2.2	.0125	Program the AN/SLA-10B.
74.0	12.2.5	.0125	Test and operate the AN/SLA-10B.
75.0	13.1.1	.0125	Troubleshoot the AN/SLQ-17 system.
76.0	13.1.2	.0125	Perform Termi-point connections.
77.0	13.1.3	.0125	Repair and replace cable connectors.
78.0	14.9.1	.0125	Initialize and operate the AN/SLQ-17A(V)2.
	Total	1.000000	

Surface Electronic Warfare Threat Recognition

CIN: K-233-0023 CDP: 526J, 085K, 41W, 1436, 6933, 207S

Skills Profile

Number	Objective	Weight	Skill or Knowledge Item
1.0	1-2	0.1	Define abbreviations, terms, and symbols used with electronic warfare.
2.0	1-13	0.1	Since the purpose of electronic warfare LOGS.
3.0	1-21	0.1	Describe rapid emitter guidelines and emitter evaluation.
4.0	1-40	0.1	Identify documents and publications that describe capabilities and limitations and allied, Soviet, and third world countries.
5.0	1-49, 1-50	0.1	State purpose of electronic order of battle and describe construction and dissemination of EOB information.
6.0	2-9	0.5	Given audio/visual presentation, identify scan type, function and probable platform of an emitter, using REGS. Given an EOB and audio/visual presentation, perform emitter to platform correlation. Given an audio/visual presentation, identify ASCMs.
	Total	1.000000	

Electronic Warfare Module Manager

CIN: K-233-0211 Old CIN: J-233-0211 CDP: 525U, 205U, 5324, 533Z, 542N

Skills Profile

			1
Number	Objective	Weight	Skill or Knowledge Item
1.0	9.0	.037	Supervise required Electronic Warfare Training.
2.0	9.0	.037	Maintain a library of Electronic Warfare related planning, research, and intelligence publications.
3.0	2.0, 3.0, 4.0, 6.0, 7.0, 8.0	.141	Disseminate EW intelligence to CIC.
4.0	1.0, 6.0	.052	Demonstrate knowledge of force and unit EW organization by integrating air and subsurface assets into the total EW Structure.
5.0	6.0, 10.0	.052	Determine the electronic equipment outfit of individual ships and classes.
7.0	6.0	.047	Design ESM guard assignments.
.0	6.0	.047	Implement ESM guard assignments.
8.0	7.0, 8.0	.040	Assists the EWO in the development of a cover and deception plan in support of a current operational plan/order.
9.0	7.0, 8.0	.040	Construct a shipboard/force Emission Control Plan.
10.0	7.0, 8.0	.040	Implement a shipboard/force Emission Control Plan.
11.0	7.0, 8.0	.040	Monitor a shipboard/force Emission Control Plan.
12.0	3.0, 4.0, 6.0, 11.0	.066	Advise and assist Fleet/Force/Unit commanders on the employment of EW in Anti-Ship Missile Defense.
13.0	5.0, 6.0	.078	Construct a friendly Electronic Order of Battle using onboard EW Planning Publications.
14.0	2.0, 3.0, 111.0	.051	Construct an enemy Electronic Order of Battle using onboard EW Planning Publications.
15.0	4.0	.006	Construct a Free World Electronic Order of Battle using onboard EW Planning Publications.
16.0	1.0	.005	Construct strategic and tactical plots.
17.0	1.0	.005	Evaluate the threat significance of intercepted electronic emissions.
18.0	2.0, 3.0, 4.0	.054	Identify an electronic emission as to its emitter platform.
19.0	2.0, 3.0, 4.0	.054	Identify an electronic emission as to its weapons association.
20.0	2.0, 3.0, 4.0	.054	Identify an electronic emission as to its threat priority.
21.0	2.0, 3.0, 4.0	.054	Identify an electronic emission as to its recommended counter measures.
	Total	1.000000	

CIN:K-233-0022 CDP: 014D, 085L, 6934, 0917, 207R		intermediate)	Effective Date: 86/06/01 Skills Profile	
Number	Objective	Weight	Skill or Knowledge Item	
1.0	2-1-2	.0416	Interpret atmospheric propagation data contained in IREPS.	
2.0	2-2-1	.0417	Interpret ESM-intercepted signal parameters using Rapid Evaluation Guidelines (REGs), including but not limited to: a. Platform, b. Functions, c. Range, d. Associated Threat.	
3.0	2-2-2	.0417	Interpret ECM requirements for own force/unit operations, including but not limited to the following: a. Own force/unit assets, capabilities, and limitations (1) JECM/DECM, (2) Strike Support, (3) Force Defense, (4) EMCON; b. Hostile force/unit assets, capabilities, and limitations (1) Sensors, (2) Platforms, (3) Weaponry/Weapon Systems.	
4.0	2-2-3	.0417	Recognize hostile force ECM activity as displayed on own force/unit sensors, including but not limited to: a. ECM directed against own force radars/radar systems; b. ECM directed against own force communications circuits/systems.	
5.0	2-2-4	.0417	Select the ECCM procedures required under specific hostile force ECM operations, relative to sensor system ECCM technique capabilities and limitations, including but not limited to the following: a. ECM directed against own force radars/radar systems; b. ECM directed against own force communications circuits/systems.	
6.0	2-3-1	.0416	Evaluate own force/unit EW capabilities and limitations relative to ESM, ECM, and ECCM in a tactical underway environment, including but not limited to: a. Surface EW (1) Land-based, (2) Sea-based; b. Airborne EW.	
7.0	2-4-1	0416	Analyze surveillance assets available to U.S. naval forces in OTH, relative to EMCON constraints and asset capability. a. Remote or National Level assets; b. Own force assets.	
8.0	2-4-2	.0417	Evaluate sensor inputs in OTH and TMA operations by own force/unit assets, including but not limited by the following: a. Sensor (1) Active, (2) Passive, (3) Sensor characteristics, capabilities, and limitations (a) DF accuracy, (b) Detection range; b. Hostile force surveillance/countertargeting; c. Communications.	
9.0	2-4-3	.0417	Solve TMA procedures in OTH operations based upon EW inputs, including but not limited to: a. Crossfixing; b. Initial target range estimates (1) Line-of-sight, (2) Maximum theoretical range (c) Plotting of EW-based inputs to TMA.	
10.0	2-5-1	.0416	Evaluate foreign/potential threat capabilities relative to U.S. Navy sea control operations and missions in specific geographic areas, including but not limited to: a. Pacific Ocean; b. Sea of Japan; c. Sea of Ohotsk; d. South Cluna Sea; e. Indican Ocean; f. Persian Gulf.	
11.0	2-5-5	.0417	Analyze foreign capabilities as threats to U.S. Navy sea control operations and missions, relative to surveillance, detection, targeting, and attack, including but not limited to: a. Platform,; b. Sen sors; c. Weaponry.	
12.0	2-5-3	.0417	Determine the requirements for information collection and dissemination under Command, Control, and Communications Countermeasures (C ³ CM) in support of U.S. Navy sea control operations and missions including but not limited to: a. Applicable warfare areas; (1) EW; (2) AAW; (3) ASUW; (4) ASW.	
13.0	2-5-4	.0417	Evaluate the indicators under C ³ CM as a threat to U.S. Navy forces, operations, and missions, a Foreign/hostile force activity, including but not limited to: (1) Surveillance and Reconnaissance: (2) Targeting, b. Tactical situation level.	
14.0	2-5-5	.0416	Determine the communications requirements in supporting own force C ³ CM.	
15.0	2-5-6	.0417	Evaluate EMCON requirements that dictate own force/unit emission selection in a tactical environment, relative to planning, advantages/disadvantages, own force/unit vulnerabilities and sensor assets, and electromagnetic interference and compatibility between sensors, including but not limited to: a. Mission Requirements; b. Hostile Threat Capabilities (1) Hostile Threat Assets c. Own Force Capabilities (1) Own Force Assets; d. Hostile Force Activity.	

CIN:K-233-0022 CDP: 014D, 085L, 6934, 0917, 207R		(Intermediate)	Effective Date: 86/06/01 Skills Profile	
Number	Objective	Weight	Skill or Knowledge Item	
16.0	2-5-7	.0417	Evaluate the tactical employment of anti-ship cruise missiles by foreign military air, naval, and landbased forces against U.S. naval forces, including but not limited to: a. Strike Platforms; b. Strike Force Location; c. Strike Force Disposition.	
17.0	2-5-8	.0417	Evaluate indicators of hostile force anti-ship cruise missile attack operations against U.S. naval forces.	
18.0	2-5-9	.0417	Evaluate anti-ship cruise missile characteristics, capabilities, and limitations that are exploitable by own force/unit for ASCM defense.	
19.0	2-5-10	.0416	Determine the communications requirements in EW operations, relative to circuit frequency, information flow, hostile force intercept of transmissions, and communications control, including but not limited to: a. EW Reports (1) Tactical Reports; (a) JINTACCS; (2) Correlation with other force sensors/assets; (a) JINTACCS.	
20.0	2-5-11	.0416	Interpret the communications requirements relative to a MIJI incident.	
21.0	2-5-12	.0417	Evaluate operations security requirements in EW communications, including but not limited to: a. BEADWINDOW (1) Essential Elements of Friendly Communications (EEFI); b. GINGER-BREAD.	
22.0	2-6-1	.0416	Evaluate and resolve EW operations responsibilities in Amphibious Operations, relative to task ing, duties, capabilities, and limitations, relative to the following: a. Commander, Amphibious Task Force (CATF); b. Commander, Landing Force (CLF); c. SIGINT/EW Coordination Center (S/EWCC); d. Fleet Marine Force (FMF); e. Fleet Composite Readiness Group (FLTCORGRU)	
23.0	2-7-1	.0417	Interpret information provided by NAVSPASUR in a tactical EW environment, relative to use by hostile/foreign forces of orbital spacecraft for the purposes of surveillance, tracking, and targeting of U.S. naval forces/units through ELINT, photography/imagery, ocean reconnaissance, and manually-operated systems, including but not limited to: a. Large Area Vulnerability Report (LAVR); b. Satellite Vulnerability Report (SVR); c. One-Line CHARLIE Element Message.	
24.0	2-8-1	.0417	Retrieve EW-related information from documentation and publications used with EW operations, including but not limited to: a. Communications; b. Sensors and Sensor Systems; c. Weap onry and Weapon systems; d. Analysis and Assessment; e. EMCON; f. OTH D, C, and T/TMA	
	Total	1.000000		

Appendix J

Electronic Warfare Technician (EW) Training Attitude Survey Results

EW Training Attitude Survey Results

	Respo	Responses*	
		Standard	
Item and Paygrade	Mean	Deviation	
Job Satisfacti	on		
My chances for advancement are good.			
E-1	5.0	0	
E-2	3.5	1.7	
E-3	2.0	1.2	
E- 4	2.6	1.3	
E-5	3.5	1.2	
E-6	3.3	1.1	
E-7	2.2	1.3	
E-8	3.3	1.8	
E-9	4.0	1.0	
have received enough formal training opportunities.			
3-1	2.0	0	
E-2	3.2	1.5	
3-3	3.4	1.2	
E-4	3.2	1.2	
3-5	3.2	1.2	
E-6	3.1	1.2	
3-7	3.6	1.3	
E-8	4.2	1.1	
E-9	3.3	1.2	
have adequate opportunity to fully use my abilities.			
3-1	4.0	0	
3-2	3.0	1.8	
3-3	3.1	1.3	
E-4	3.1	1.4	
2-5	3.0	1.4	
E-6	3.3	1.3	
3-7	3.5	1.2	
E- 8	4.2	1.1	
E-9	2.0	1.7	

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

EWTraining Attitude Survey Results (Continued)

	Resp	onses ^a	
Item and Daysenda	 Mean	Standard	
tem and Paygrade	Mean	Deviation	
Job Sati	isfaction (Continued)		
The formal training I have received provides me with	the skills I need to perform my job.		
E-1	5.0	0	
E-2	4.0	0.8	
E-3	3.9	0.9	
E- 4	3.8	1.1	
E-5	3.7	1.1	
E-6	3.8	1.0	
E-7	3.8	1.1	
E-8	4.3	0.9	
E-9	3.0	1.7	
am satisfied with the progress I have made in the Na	vy up to now.		
G-1	3.0	0	
E-2	3.0	1.8	
E-3	2.4	1.5	
E-4	2.7	1.3	
E-5	3.7	1.2	
E-6	4.0	1.1	
E-7	4.0	1.1	
E-8	4.4	.9	
∃-9	4.3	.6	
feel that the ability to perform my job has increased	as a result of my formal training.		
S-1	5.0	0	
E-2	4.2	0.5	
E-3	3.6	1.0	
E-4	3.7	1.2	
E-5	4.0	0.9	
C-6	3.8	1.0	
3-7	4.0	1.0	
E-8	4.1	1.2	
E-9	2.7	1.5	

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

EW Training Attitude Survey Results (Continued)

	Respo	Responses ^a	
	-	Standard	
Item and Paygrade	Mean	Deviation	
Job Satisfact	ion (Continued)		
I think that I was placed in the right rating in the Navy.			
E-1	5.0	0	
E-2	3.2	2.1	
E-3	2.7	1.5	
E-4	3.5	1.4	
E-5	3.9	1.3	
E-6	3.9	1.3	
E-7	4.2	1.0	
E-8	4.5	1.0	
E-9	2.7	2.1	
I feel a great sense of personal satisfaction when I do my jo	b well.		
E-1	5.0	0	
E-2	4.5	0.6	
E-3	4.2	1.1	
E-4	4.6	0.7	
E-5	4.7	0.8	
E-6	4.7	0.7	
E-7	4.9	0.4	
E-8	4.4	1.2	
E-9	4.7	0.6	
My supervisor encourages me to receive available formal to	raining.		
E-1	5.0	0	
E-2	4.0	0.8	
E-3	3.9	1.2	
E-4	3.5	1.3	
E-5	3.7	1.3	
E-6	3.3	1.4	
E-7	3.4	1.1	
E-8	3.4	1.4	
E-9	3.0	1.0	

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

EW Training Attitude Survey Results (Continued)

	Resp	onses ^a
		Standard
Item and Paygrade	Mean	Deviation
Job Satisfaction (Continued)		
The on-the-job training that I receive is adequate.		
E-1	4.0	0
E-2	4.2	0.5
E-3	3.9	1.1
E-4	3.4	1.2
E-5	3.6	1.0
E-6	3.5	1.0
E-7	3.5	0.9
E-8	3.7	1.2
E-9	2.0	1.0
I feel that I am getting enough feedback about my job performance.		
E-1	2.0	0
E-2	3.0	1.2
E-3	3.4	1.2
E-4	3.3	1.3
E-5	3.3	1.1
E-6	3.5	1.2
E-7	3.5	1.1
E-8	3.5	1.7
E-9	3.3	1.2
My supervisor is aware of my formal training needs.		
E-1	5.0	0
E-2	3.7	1.3
E-3	4.1	0.9
E-4	3.7	1.1
E-5	3.7	1.0
E-6	3.5	1.3
E-7	3.7	1.2
E-8	3.4	1.4
E-9	4.0	1.0

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

EW Training Attitude Survey Results (Continued)

	Respo	onses ^a
Item and Paygrade	War-	Standard
nem and raygrade	Mean	Deviation
Job Satisf	action (Continued)	
I get a feeling of accomplishment from this job.		
E-1	4.0	0
E-2	3.2	1.7
E-3	3.2	1.4
E-4	3.5	1.2
E-5	3.6	1.3
E-6	3.9	1.1
E-7	3.8	1.0
E-8	3.9	1.2
E-9	2.7	2.1
The promotion system is adequate.		
E-1	4.0	0
E-2	2.2	1.5
E-3	1.8	1.1
E-4	2.2	1.2
E-5	3.1	1.3
E-6	3.0	1.3
E-7	2.8	1.3
E-8	3.7	1.3
E-9	3.0	1.0
am learning skills that will be useful later in my enlistn	nent.	
E-1	5.0	0
3-2	4.0	0.8
E-3	3.6	1.2
E-4	3.9	1.0
E-5	3.9	1.2
E-6	4.2	1.1
E-7	4.2	1.0
E-8	4.1	1.2
E-9	3.0	1.0

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

EW Training Attitude Survey Results (Continued)

	Resp	Responses*	
v. 15		Standard	
tem and Paygrade	Mean	Deviation	
Job Satisfac	tion (Continued)		
The formal training I have received provides good chances	s for getting ahead.		
E-1	4.0	0	
E-2	4.2	0.5	
E-3	3.1	1.1	
3- 4	3.5	1.1	
E-5	3.6	1.1	
E-6	3.6	1.2	
3-7	3.8	1.1	
E-8	4.2	0.8	
E-9	3.3	0.6	
This command is generally quick to use existing formal tra	aining.		
5-1	4.0	0	
E-2	2.2	1.0	
E-3	3.4	1.1	
E-4	2.9	1.2	
E-5	3.1	1.1	
E-6	3.1	1.4	
E-7	3.5	1.1	
E-8	3.6	1.4	
E-9	2.7	1.5	
am pleased that I am in the EW rating.			
3-1	5.0	0	
E- 2	3.7	1.9	
E-3	3.1	1.6	
E-4	3.8	1.1	
E-5	4.1	1.1	
E-6	4.2	1.1	
3-7	4.4	1.0	
E-8	4.4	1.2	
E-9	3.7	2.3	

 $^{^{}a}$ Responses range from 1 = strongly disagree to 5 = strongly agree.

EW Training Attitude Survey Results (Continued)

	Respo	Responses*	
		Standard	
tem and Paygrade	Mean	Deviation	
Job Satisfaction (Contin	nued)		
am satisfied with the team training I have received.			
E-1	3.0	0	
E-2	2.7	1.0	
E-3	3.4	1.2	
E-4	3.4	1.2	
E-5	3.3	1.0	
E-6	3.3	1.1	
E-7	3.0	1.3	
E-8	3.0	1.5	
E-9	1.5	0.7	
Organizational Commit	ment		
I intend to complete my enlistment.		-	
E-1	5.0	0	
E-2	4.0	2.0	
E-3	4.7	0.8	
E-4	4.8	0.4	
E-5	4.9	0.4	
E-6	4.8	0.7	
E-7	4.7	0.9	
E-8	4.9	0.3	
E-9	3.7	2.3	
The EWs I work with encourage each other to give their best effort.			
E-1	5.0	0	
E-2	3.7	0.5	
E-3	3.9	0.9	
E-4	3.7	1.2	
E-5	3.6	1.1	
E-6	4.1	0.8	
E-7	4.1	0.8	
E-8	4.2	1.1	
E-9	3.3	1.2	

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

EW Training Attitude Survey Results (Continued)

	Respo	onses*
Item and Paygrade	Mean	Standard Deviation
	Commitment(Continued)	
I feel a sense of achievement in my job.		
E-1	4.0	0
E-2	3.0	1.4
E-3	3.5	1.4
E-4	3.4	1.2
E-5	3.5	1.3
E-6	3.8	1.1
E-7	4.0	1.0
E-8	4.1	1.3
E-9	3.3	2.1
I feel positive about my future with this Command.		
E-1	4.0	0
E-2	2.5	1.3
E-3	2.1	1.0
E-4	2.7	1.4
E-5	3.1	1.4
E-6	3.4	1.4
E-7	3.6	1.3
E-8	4.0	1.5
E-9	2.3	2.3
I intend to make a career out of the Navy.		
E-1	1.0	0
E-2	2.0	1.2
E-3	2.3	1.3
E-4	2.2	1.2
E-5	2.8	1.3
E-6	3.9	1.3
E-7	4.8	0.5
E-8	5.0	0
E-9	4.0	1.0

 $^{^{}a}$ Responses range from 1 = strongly disagree to 5 = strongly agree.

EW Training Attitude Survey Results (Continued)

	Resp	onses*
Now on J Proceeds	Mean	Standard Deviation
Item and Paygrade		Deviation
Organizational Commitment(Continue	ed)	
I think of the Navy's problems as my problems.		
E-1	4.0	0
E-2	2.7	1.0
E-3	3.0	1.2
E-4	2.7	1.2
E-5	3.3	1.2
E-6	3.7	1.1
E-7	4.1	0.8
E-8	4.0	1.1
E-9	4.3	0.6
It is important to me to advance through my rating as quickly as possible.		
E-1	5.0	0
E-2	4.7	0.5
E-3	4.7	0.5
E-4	4.4	0.9
E-5	4.5	0.8
E-6	4.5	0.9
E-7	4.5	0.7
E-8	4.6	0.7
E-9	4.3	0.6
The EWs I work with maintain high standards of performance.		
E-1	5.0	0
E-2	3.0	1.4
E-3	4.1	1.2
E-4	3.8	1.1
E-5	3.6	0.9
E-6	4.2	0.9
E-7	4.1	0.9
E-8	3.9	1.2
E-9	3.0	2.0

 $^{^{}a}$ Responses range from 1 = strongly disagree to 5 = strongly agree.

EW Training Attitude Survey Results (Continued)

	Respo	
Item and Paygrade	Mean	Standard Deviation
		Deviation
Organizational	Commitment(Continued)	
would leave the Navy if I had the chance.		
E-1	2.0	0
E-2	4.0	1.4
E-3	3.5	1.2
E-4	3.6	1.6
E-5	3.1	1.3
E-6	2.6	1.4
E-7	1.9	1.0
E-9	2.1	1.2
E-9	3.0	2.0
would like to gain more responsibility.		
E-1	5.0	0
E-2	4.5	0.6
E-3	3.8	1.0
E- 4	4.2	0.8
E-5	4.1	0.9
E-6	4.5	0.8
5- 7	4.4	0.8
E-8	4.7	0.5
E-9	4.3	0.6
My work group is able to respond to unusual work dem	ands when necessary.	
E-1	4.0	0
E-2	4.2	0.5
E-3	4.3	0.8
E-4	4.1	1.0
3-5	4.2	0.8
E-6	4.4	0.8
3-7	4.7	0.5
E-8	4.4	1.2
E-9	4.7	0.6

aResponses range from 1 = strongly disagree to 5 = strongly agree.

EW Training Attitude Survey Results (Continued)

	Resp	onses ^a
item and Dayarada	Mean	Standard Deviation
Item and Paygrade		Deviation
Organizationa	l Commitment(Continued)	
Reenlisting is important to me.		
E-1	2.0	0
E-2	2.0	1.2
E-3	2.3	1.0
E-4	2.4	1.3
E-5	2.9	1.3
E-6	3.7	1.4
<u>2-7</u>	4.0	1.2
E-8	3.7	1.3
E-9	3.3	2.1
find that my values and the Navy's values are very sin	milar.	
3- 1	4.0	0
E-2	1.7	1.5
2-3	2.5	1.3
3-4	2.4	1.1
- 5	2.8	1.2
2- 6	3.4	1.3
ē-7	3.6	0.9
E-8	4.1	1.1
E-9	3.7	2.3
take pride in my work.		
<u>5-1</u>	5.0	0
3-2	4.7	0.5
3-3	4.6	0.5
E-4	4.6	0.7
E-5	4.7	0.7
E-6	4.8	0.7
3-7	4.9	0.3
E-8	4.9	0.3
E-9	4.7	0.6

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

EW Training Attitude Survey Results (Continued)

	Responses ^a	
Item and Paygrade	Mean	Standard Deviation
		Deviation
Organizational Commitment(C	ontinued)	· · · · · ·
I intend to reenlist after finishing my current enlistment.		
E-1	1.0	0
E-2	2.0	1.2
E-3	2.1	1.3
E-4	2.3	1.2
E-5	2.9	1.4
E-6	3.8	1.4
E-7	4.1	1.2
E-8	3.9	1.4
E-9	2.3	2.3
My work center can meet day to day mission requirements well.		
E-1	4.0	0
E-2	4.0	0
E-3	4.5	0.6
E-4	4.2	1.0
E-5	4.3	0.9
E-6	4.4	0.8
E-7	4.5	0.6
E-8	4.6	0.5
E-9	3.7	1.2
am willing to put forth extra effort to help the Navy.		
E-1	5.0	0
E-2	3.5	0.6
E-3	3.4	1.3
E-4	3.7	1.0
E-5	4.1	0.9
E-6	4.5	0.6
3-7	4.6	0.6
E-8	4.6	0.7
E-9	4.7	0.6

^aResponses range from 1 = strongly disagree to 5 = strongly agree.

EW Training Attitude Survey Results (Continued)

	Respo	Responses ^a	
Item and Paygrade	Mean	Standard Deviation	
Organizationa	al Commitment(Continued)		
I have confidence in the Other EWs that I work with.			
E-1	5.0	0	
E-2	3.2	1.0	
E-3	3.9	0.9	
E-4	4.0	1.1	
E-5	3.6	0.9	
E-6	4.1	0.9	
E-7	4.2	0.9	
E-8	3.9	1.3	
E-9	3.3	2.1	

 $^{^{}a}$ Responses range from 1 = strongly disagree to 5 = strongly agree.

Distribution List

Distribution: Chief of Naval Operations (OP-111J) Bureau of Naval Personnel (PERS-01JJ) Defense Technical Information Center (4)

Copy to: Chief of Naval Operations (N869) Chief of Naval Education and Training (N32)